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A TREATISE

ON

THE SCROFULOUS DISEASE,

BY

C. G. HUFELAND,

Physician to the King of Prussia, &c.

Translated from the French of M. Bousquet

BY

CHARLES D. MEIGS, M.D.

MEM. AM. PHIL. SOC.

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Eastern District of Pennsylvania, to wit :

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“ A Treatise on the Scrofulous Disease, by C. G. Hufeland, Physician to the King of Prussia, &c. Translated from the French of M. Bousquet by Charles D. Meigs, M.D. Mem. Am. Phil. Soc.”

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D. CALDWELL,

Clerk of the Eastern District of Pennsylvania.

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Library Street, Philadelphia.*

TO

FRANKLIN BACHE, M.D.

Member of the American Philosophical Society, Professor of Chemistry in the Franklin Institute, &c. &c.

Dear Sir,

Were it in my power to give you a higher proof of my regard, I would not call your attention to it in so small a volume as this.

Let the great merit of Professor Hufeland's work be, in some measure, my excuse for troubling you, in this mode, with an assurance of the true respect and attachment with which I am always

Your obliged

CH. D. MEIGS.



AUTHOR'S PREFACE.

WHEN a disease spreads in so frightful a manner as Scrofula, exercises so fatal an influence on the constitution, and is so rebellious against all the resources of art, every philanthropic physician ought, doubtless, to make it the special object of his study, and contribute his share of effort, successfully to combat with his brethren, against so terrible an enemy.

Hence, I acknowledge I was agreeably surprised to learn that the Imperial Society of Naturalists had called the attention of the profession to so important a subject, by the offer of a prize. I felt in duty bound to contend for it, and immediately began to

collect the fruits of my experience and reflection, in order to submit them to the judgment of the Academy.

The reader is requested not to consider this as a complete treatise on Scrofula, (for such was not the design of the Society, as it would have been superfluous after the works of Kortum and Weber), but only as the result of my own observations, or, if he please, as a simple essay, in which I have endeavoured to methodize those observations, and to illustrate experimentally some points of the question that are as yet but little understood.

I conceived I should act conformably to the intentions of the Society, if I sedulously avoided long quotations, and every thing that might savour of parade. Thus, instead of bringing under review all the curative means that have been proposed against the scrofulous taint, I have attended exclusively to the most approved of them, while I have endeavoured to determine their indications with

more preciseness than has been done heretofore.

The work has been divided into three parts, in conformity with the intentions of the program, which is as follows:

1. *Naturam acrimoniæ scrophulosæ novis observationibus explicare.*

2. *Signa diagnostica certissima, quibus virus scrophulosum, in corpore latens, et in varios gradus malignitatis abiens, licet tumoribus nondum, manifestum cognoscatur.*

3. *Accuratis observationibus edocere, quibus scrophularum speciebus et complicationibus cum aliis morbis, singula remedia anti-scrophulosa, hucusque cognita, maxime sint accommodata; cum primis autem, terræ ponderosæ muriatæ efficaciam in scrophulis et affectibus scrophulosis accurate definire.*

I shall therefore treat in succession, 1. Of the nature and proximate cause of the scrophulous disease. 2. Of its diagnosis. 3. Of its curative indications and the means of fulfilling them.

When I published the first edition of this

work in 1797, physicians were divided between the humoral pathology, the doctrine of vital forces, and the new chemical doctrines which had then begun to appear. My aim was to unite the opinions of all on one single point, viz. the unity of the vital principle. The system of Brown was at that time unknown in Germany, where it soon afterwards effected a revolution, but itself early gave place to the *Philosophy of Nature**. In the meanwhile, all these vacillations could not impede the progress of chemistry, of natural history, or even of *materia medica*.

Revolutions of this sort are well calculated to make us feel the difference there is between nature, and mere systems; the invariableness of the laws of the former, and the versatility of the latter. More and more convinced of this truth, I imposed on myself the duty of laying aside all systems, and of depending on observation.

* System of SCHELLING.

Such is the feeling with which I composed this work, and all others that have come from my pen. I am now gathering the fruits of this method; for after the lapse of more than twenty years, I find nothing essential to change in this treatise, and have the satisfaction of seeing that the doctrine of vital forces which I then inculcated, now unites the suffrages of all good understandings. I am led to hope, therefore, that the work will not be less useful now, than when I first composed it.

Nevertheless, I have not neglected to enrich it with all that my own experience, and that of others, has since taught me of the nature and treatment of Scrofula. Some new divisions will be found in the history of its symptoms, and in the chapter which treats of topical remedies. The remainder is conformable to the first edition, a circumstance, which, in fact, gives an increased value to my opinions, since they are found to be confirmed by twenty-four years of added

experience, and of reflection on the diseases of children, and by a very large practice, of latter years, among the poor of a great city.

It ought also to be remarked that I still adhere to the old nomenclature, because, as I have elsewhere said, in regard to objects that interest all nations and all ages, a scrupulous attention should be paid to phrases that are consecrated by custom, if we would avoid the most serious errors, and make ourselves understood. Witness the changes that have taken place in medical nomenclature in the past twenty years; and surely, we shall see that it is far from being unchangeably established now. I ask if it is not more simple and more plain to say *taraxacum* than dandelion, death flower, &c. calomel, than submuriate of mercury, or mild muriate of mercury, &c.? It is in vain to tell me that science or patriotism are interested in changes of names.

TRANSLATOR'S PREFACE.

THE American translator thinks he owes no apology to his professional brethren for presenting to them the work of the celebrated Hufeland on the Scrofulous Disease. His object has been to do good, by making common property in this country of that treasure of experience in regard to the *treatment* of the scrofulous disease; which, after all the treatises we have had, seems to have been left in great confusion and uncertainty: one of the surest proofs of which is found in the simple fact, that such diseases, after a few ill directed efforts, fall soon or late into the hands of the Quacks.

It is believed that no medical man can read this work without rising from its peru-

sal with clearer views of the nature of scrofulous affections, and more abundant knowledge of the best means of combating them.

There are in it many points of doctrine which are not well adapted to please the modern pathologist; but they may be well overlooked by him who knows how to extract from the whole book the results of large experience and close observation so clearly detailed by one who is admitted to rank among the most sagacious, as he does among the most illustrious physicians of the age.

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TREATISE

ON

THE SCROFULOUS DISEASE.

INTRODUCTION.

It is important to determine the real object of our researches before we set about them.

In the first place, it is common to confound *scrofulas* with the scrofulous disease, although they in fact differ very widely. *Scrofulas* (*scrofulæ*) are merely swellings of glands, and indicate only a local affection of the lymphatic tissues, while the scrofulous disease (*scrofulosis*) consists in a general affection of the lymphatic system, a diathesis, a peculiar disposition, of which *scrofulas* are only the results or symptoms. *Scrofulas*, therefore, are to the scrofulous disease what the effect is to the cause—the latter can not exist without the former, and *vice versa*. A swelling of a gland is not, therefore, a certain sign of the presence of the scrofulous diathesis, nor does the absence of such a sign preclude the idea of the general affection.

True *scrofulas* (*scrofulæ veræ*) are, furthermore, confounded with false ones (*scrofulæ spuriae*, *sympathicæ*, *symptomaticæ*), as if every glandular engorgement were

necessarily scrofulous; but observation has proved that a major part of the diseases of the lymphatic system are frequently accompanied with similar swellings; such are small pox, measles, scarlatina, syphilis, and many other affections that are foreign to this system, as toothach, cutaneous inflammations, a burn, a blister, a simple contusion, &c.

These engorgements then are purely symptomatic, or in other words, the effects of another affection, on whose condition they depend: they increase, diminish, appear, and disappear with it. But it is not so with true scrofulas: they have their seat in the lymphatic system, depend on its affections, and are closely allied to its conditions. In fine, it is only by acting on that system, and adapting our remedies to the peculiar modifications affecting it, that we can hope to cure real scrofulas, while the treatment of spurious scrofulas ought to be conducted with a clear view of the disease which may have produced them.

There is another distinction that ought to be made, and that is, in relation to *secondary* or deuteropathic scrofulas. This is the name that I give to those scrofulas which, although they are the effects of another disease, subsist nevertheless after its disappearance; a circumstance that forbids us to confound them with symptomatic scrofulas, whose character they have laid aside. For example, when a symptomatic affection continues very long, it may produce so great a change in the part where it is located, as to survive the causes that gave rise to it, so that, from being merely symptomatic as it was originally, it becomes really an essential affection.

SECTION I.

OF THE NATURE OR PROXIMATE CAUSE OF THE SCROFULOUS DISEASE.

Physicians are not agreed as to the proximate cause of this disease: some place it in the humours, and consider it as an acrimony of the lymph, or an obstruction of the lymphatic vessels; others believe its seat to be in the solids, and of these they designate the lymphatic system.

This difference of opinion depends, partly, on the variety of forms under which the scrofulous habit manifests itself, and partly on the pathological doctrines that prevail at the present day; doctrines which cause not only the direction given to researches of this kind to vary, but even the explanations themselves, according to the way of thinking and speaking which each individual has founded on his own particular theory.

Nevertheless, it is very desirable to come at something positive, or rather to come to a mutual understanding; for surely the principles of this difference are to be found less in things than in words: if the question were an hypothesis, having no relation to practice, it would be of less consequence; but it is of importance to ascertain what is the proximate cause of any disease, since this knowledge lies at the foundations of both diagnosis and treatment.

I hope therefore I shall be permitted to consecrate the first pages of this work to a subject of so much im-

portance. I shall point out in the first place the occasional causes, for they seem to me fitted to shed a great deal of light on the proximate cause: I shall then proceed to the examination of the latter, both in itself considered, and in its relations to the scrofulous disease.

CHAPTER I.

General considerations on the lymphatic system, intended to serve as an introduction to the pathogeny of the scrofulous disease.

As the scrofulous disease has its seat in the lymphatic system, it becomes indispensable to obtain precise ideas of the structure and functions of that system.

It seems to me to be, in general, regarded under a point of view entirely too limited. To call it by the single name of absorbent system is to place us under the necessity of attributing to it only the faculty of absorbing, though it has many other uses.

It is composed of three orders of organs.

1. *Absorbent vessels, properly so called*: an assemblage of a multitude of small, delicate, transparent, uneven vessels provided with valves, arising by innumerable radicles from the external and internal surfaces of the skin, from the membranes, the cellular tissue, &c. They are distributed among all the organs, like the arterial vessels of which they are the terminations, and terminate mostly in the thoracic duct; I say mostly, for there are some that communicate directly with the blood vessels. Some anatomists distinguish the lacteal from the lym-

phatic vessels ; but this distinction, founded on the nature of the fluid contained in them, is useless in practice.

2. *The thoracic duct*, in which the major part of the lymphatic vessels terminate.

3. *The lymphatic or conglobate glands* ; small oval reddish bodies, composed of white vessels, blood vessels, and nerves, distributed here and there along the tract of the lymphatics, as the ganglions are along the nerves ; but they exist in greater number in the mesentery, along the internal face of the thighs, in the groins, about the neck, in the arm pits, and, generally, in all parts of the body where cellular tissue abounds.

Besides its general physical properties, the lymphatic system is endowed with a vital power which is wholly different from the properties of brute bodies. This power is proved beyond question by the quantity of nerves that enter into its composition, by the influence it exercises on the general nervous system, and by that which it derives from that system. In order properly to appreciate its functions, we ought to take into consideration, therefore, both its physical and vital forces, and profit by our knowledge of the lesions to which the vital power of other systems is exposed, as erethism, spasm, convulsions, paralysis, &c. in order to throw light on those affections of which the lymphatic system is susceptible.

As to the functions of this system, there are two principal ones.

1. *Absorption.*

Under the head of absorption is comprised every thing that enters into the current of the circulation to become identified with our structure, excepting those substances which, being attracted from the air, mingle at once with the *blood* in our respiratory organs.

Absorption is effected, first, *in the digestive tube* on the materials designed to repair the constant waste of the body. Second, *on the surface of the skin and on the interior of the bronchia*. These organs are provided with a prodigious quantity of absorbent vessels, through which passes whatever the skin takes from the atmosphere, and a major part of what the lungs absorb from the same medium. Third, *in the interior of the cavities*. This mode of absorption is proved to exist by the mere fact of exhalation. Indeed it is manifest that these cavities would soon be filled with the products of exhalation, if they were not provided with vessels for carrying off the superfluous quantity. Fourth, *in the spaces between the laminæ of the cellular tissue, and wherever there are any absorbing vessels*. Here we must locate the absorption which takes place in the very bosom as it were of our parts, in the secretory organs, muscles, &c.

The object of this mode of absorption appears to be: *a.* The resorption of the lymph, that it may again be mixed with the blood that furnished it, to accomplish the act of nutrition. *b.* To collect and absorb all heterogeneous particles, in order that they may be eliminated. But the principal use of the vessels under consideration appears to be, to free the secretory organs from any excess or superfluity of their secreted fluids. It is in this way that they carry off bile from the viscus that secretes it and transport it to the skin, a striking example of which is afforded in the disease known by the name of *icterus*. It is very probable, therefore, that a direct communication exists between the absorbent vessels and our organs, a communication which facilitates the transportation of fluids from one part to another, without their being obliged to pass through the great circulation; as for example, in *diabetes*. *c.* To take up and transport morbid matter from one place to another,

as we have often observed it to happen in regard to pus. Such, doubtless, is the mechanism in most cases of metastasis, and the reason why they are so often finally arrested in the glands.

2. *Preparation and assimilation of the nutritive fluids.*

The use of the lymphatic system is not merely to give passage to those molecules which are destined to constitute part of our organs ; or in other words, it is not a simple passive highway, open to all those principles that are proceeding to enter into the great circulation. It is really in this system that the organic molecules introduced into the body begin to lose their heterogeneous qualities and to approximate towards the character of animal matter ; it is here they take the first step from the physical to the vital world, a species of preparation which disposes them to be clothed with the properties of the blood which they are destined to renew.

We have already said enough to show how great an influence is exercised by the lymphatic system on the material composition of the body, and on the condition of its forces ; as well as partially to exhibit the changes which lesions of this same system must effect in the economy.

1. *Sanguification* is essentially connected with the state of the absorbent system. I would say it follows all its alterations, all its vicissitudes.

2. The same system effects *nutrition*, whether by collecting the nutritive principles and impressing on them the first character of animalization, by preventing the accumulation of the lymph, or by eliminating from the body whatever might become hurtful by too long a sojourn. Thus then, the absorbent system occasions emaciation, atrophy, the excessive development of our

parts, obesity, serous infiltrations, &c.; it also distributes the materials of nutrition, and sometimes surcharges one organ beyond its wants, as, for example, when it occasions an excess of phosphate of lime in the bones.

3. By eliminating the deleterious principles that either enter into or are developed in the economy, the system we speak of *depurates, purifies* the body; but this very circumstance renders it liable to become the source of a host of diseases.

4. To know that the lymphatic system maintains the *equilibrium of the circulation* is also to comprehend how its alterations should derange the course of the blood and promote congestions.

5. Finally, it is to the absorbent system that we must also attribute the *development of forms*. You will doubtless have remarked, that in proportion as our organs develope themselves, unequivocal signs of irritation in this system are manifested; such, among others, are swellings of glands commonly called growing kernels: neither is it rare to see this system disembararrass itself spontaneously of diseases with which it had been affected, and sometimes to acquire new ones.

It clearly results from the foregoing, that the matters that circulate in the lymphatic vessels (matters that are too vaguely designated by the name of *lymph*) are:

1. Chyle, produced from alimentary substances introduced into the *primæ viæ*.

2. The most subtle principles taken from the atmosphere.

3. The debris of the organs themselves, which have become a prey to absorption.

* All these things, contained in the lymphatic vessels, ought to be taken into consideration in order justly to appreciate the diseases to which they are subject, and the causes that produce them. Unfortunately, most

pathologists have made account only of the parietes of these vessels, and the fluids which traverse them have been totally neglected, although they often determine the state of the vessels themselves. In the flourishing days of humouralism the importance of the humours was exaggerated, and mention was scarcely made of the solids; but now, when the doctrine of sensibility predominates, the contrary takes place. Truth rejects both extremes.

CHAPTER II.

Remote causes of the scrofulous disease.

The scrofulous disease may be produced by an alteration of the lymphatic system itself, and by a change in the fluid it contains.

I divide the remote causes of this affection into three classes.

1. The first class embraces every thing that may effect a diminution of tone in the solids, and particularly in those of the lymphatic system.

2. The second comprehends whatever may exalt the irritability of this system or blunt its sensibility.

3. I arrange in the third every thing that occasions the formation of chyle or lymph of a bad quality, such as unwholesome air, any derangement in the offices of nutrition or the functions of the skin and lungs.

But it is time to explain the particular causes of the disease under consideration. They are commonly divided into predisposing and occasional: a division that

is not very precise. In fact the predisposing causes do not tend merely to the development of a scrofulous taint: they give birth to the disease with all its characteristic symptoms, provided they act for a sufficiently long period of time; and on the other hand, the occasional causes are restricted merely to facilitating the development of the scrofulous disposition, but have no influence in its production. I propose to name the first *essential* or *principal causes*, and the others *exciting causes*.

I. PREDISPOSING, OR PRINCIPAL CAUSES.

1. *Hereditary tendency.*

A majority of the children who are born of scrofulous parents bring into the world a disposition to this disease. It has generally been found to be not tardy in developing itself. It has been vainly attempted to throw doubts over these facts; but the testimony of experience is not to be disputed. I know whole families in which the scrofulous taint has been perpetuated through two or three generations, and in which it does not attack one child only, but five, six, and even more. In countries where this affection is very common, and so to speak endemical, as in England, the people are so well convinced of this truth, that one of the most important points in the choice of a wife is that she shall be free from the scrofulous taint. And besides, why should we be astonished to find a constitutional disease hereditary? have not all diseases of this sort the direful privilege of transmitting themselves as life is transmitted from one to another?

Not only are children born under these circumstances tainted with the scrofulous disposition, but some are born with the affection fully formed. Among these latter,

a. Some are affected soon after birth with inflammation of the eyes, known by the name of ophthalmia of infants.

b. Others present cutaneous eruptions, ulcerations, or puriform discharges from the ears, all which are scrofulous symptoms at that time of life. I have very recently seen a case of this kind. Perhaps the pemphigus of new born children observed by M. Osiander ought to be arranged under this head.

c. Others again have glandular engorgements.

d. Here we find them affected with *spina bifida*, a disease which is almost always of a scrofulous character.

e. There they present an *induration* of the cellular tissue, an affection peculiar to new born infants, which was first noticed in France, and then in England and Germany.

I am led to believe that this affection is of a scrofulous nature, partly on account of its analogy to the scrofulous diathesis, and partly because it was not noticed until since the strumous constitution has become so common, and that too especially in countries where that constitution is almost endemic.

However, it does not follow, because the scrofulous taint is hereditary, that a child born of such parents must become scrofulous. Art sometimes contends successfully against nature.

2. Sex and age.

Observation has proved that children and women are particularly disposed to the scrofulous disease, a fact that ought to astonish us the less inasmuch as these are the age and the sex in which we find circumstances most favourable to its development, I mean weakness and great nervous susceptibility.

3. *Weakness of parents.*

Nothing is more apt to communicate to children the disposition we speak of than weakness of the parents, and especially weakness of the organs of generation, an ordinary consequence of onanism and venereal excesses. This fate is reserved for the children of those who marry after having abused their youthful powers. It is probably not so much the venereal virus itself that produces such melancholy effects, as the abuse of venereal pleasures, and especially the abuse of masturbation. There is a close connexion between debility of the reproductive organs and the scrofulous state, a connexion so clearly proved by experience, that one must be uncandid to call it in question; and does not plain reason teach that exhausted parents must communicate to their offspring a character of debility of which the lymphatic like other tissues must partake? Children of a mother, and especially of a father far advanced in years, also bring into the world a disposition to the scrofulous affection which develops itself at an early period.

4. *Syphilis of parents.*

It is certain that the scrofulous disease is often nothing but a consequence of syphilis, I had like to have said syphilis degenerated, and transmitted from the mother to the fœtus by means of generation. I have frequently seen syphilitic parents give birth to children who either at their birth or very soon afterwards, presented all the symptoms of the scrofulous taint: and it has been remarked, that since the appearance of the pox, this taint has become much more common than it was before. At the present day, it is more frequent in those countries where syphilis is very prevalent than it is in others. The very symptoms have a striking resemblance

to those of lues venerea. Indeed, every thing, even the treatment, confirms this analogy: is there in fact any remedy more prompt and efficacious than mercury in both diseases?

Whatever may be thought of this analogy, it is easy to see that an affection of the lymphatic system, such as syphilis, may impress on that system a character of feebleness which passes from parent to child and forms the principle of the scrofulous diathesis. This does not compel us to admit the immediate passage of the real virus of pox into the elements of the germ: the known laws of nature suffice to explain why this virus may affect the organization of the foetus.

5. *Influence of unwholesome aliment in the production of the scrofulous disease.*

I comprise under this title every substance the assimilation of which is more or less difficult, and whose principles, although they may combine with our organs, nevertheless continue to retain something of their original character. In this number are,

1. *Artificial lactation.* Nothing is more injurious to the health than artificial suckling. I have almost always found that children brought up in this way were more or less disposed to the scrofulous disease.

a. Of all the fluids of the human body, none is more endowed with vitality than milk. This is proved by the almost instantaneous influence exercised by moral affections on the mixture and intimate combination of its constituent principles. In this respect milk may be compared to the seminal fluid: it is certainly not a matter of indifference in the design of generation, whether the sperm shall pass directly from one living body to

another, or whether it shall be transmitted to the latter some time after having left the former. Milk is vital while enclosed in its secretory organs, and the vital principle which animates it, while it appropriates it to the infantile constitution, renders it, at the same time, more nutritious and more digestible. Compare children that are nourished at the maternal breast with those that are artificially brought up, and you will see that, generally, while the former are fat, fresh looking, and healthy, the latter remain weak and languid, at least during the first year of their existence.

See with what ease yonder miserable individual, ready to perish with consumption, bears a diet of milk sucked directly from the teat of the animal, or at least drunk while still fuming with its natural heat; give him the same milk an hour later, and it will cause him to have indigestion, pain, sense of weight in the stomach, &c. &c. Whence arises this difference, if it does not depend on the principle of life with which the milk is animated while enclosed in the organs that prepare it, and which vanishes as soon as it ceases to be in contact with them? Then commences another combination of its principles: the laws of chemistry, laws which govern dead matter, immediately begin to supersede the laws of vitality, and at length the influence of the latter is completely effaced. Sucking at the breast seems to me a plan which nature has laid to keep up for some time longer a direct communication between the suckling and its mother, and to furnish it with a nutriment adapted to the delicate condition of its organs.

b. We commonly forget that most of the animals which furnish us with milk are purely herbivorous, while women derive their nutriment from each of the three kingdoms of nature. This difference in the nature of aliments produces an effect on the secretions. There is

in the milk of animals something of a vegetable nature, which does not exist to the same amount in the milk of women. And hence the tendency to acidity from which the chyle itself seems not to be wholly exempt, a tendency which is very common in children who are brought up by hand.

c. By the motion of its lips, the child that sucks its mother's breast occasions a flow of saliva into the mouth: this liquid mixes with the milk, enters into combination with its principles, which in this way acquire an inchoate animalization, that makes them more easy of digestion. The mixture of saliva with food is a condition essential to a good digestion, not only in children, but in adults also. It is well known that delicate stomachs bear liquid aliments, such as potages, with more difficulty than solid ones; and this is because the latter are impregnated with saliva, while the former reach the stomach just as they are taken. Some have pretended that this phenomenon is owing to the heat of potages, as if other liquids, no matter how cold, do not assume the temperature of the stomach as soon as they are placed in contact with it.

d. It is difficult to pourtray all the dangers that may result from artificial lactation. The milk is sometimes too hot, sometimes too cold, sometimes too old, and at others even spoiled. It is especially very injurious to change it; for, not only does the milk of different species of animals differ, but it differs even in individuals of the same species. There is no occasion to speak of the effects of diseases on this fluid. I will merely observe, that the milk of animals not being sufficiently nourishing, it often becomes necessary, in order to quiet the cries of the infant, to give it a more consistent aliment, a circumstance not without its inconveniences, as will be readily supposed.

It results from what I have said above, that the milk of animals, and in general all artificial nourishment, furnishes a bad kind of chyle, and may, hence, become a predisposing cause of the scrofulous disease. However, as there are cases in which lactation is out of the question, I advise that the infant should be put to the teat of the animal, or at least, that it should take the milk while it is still warm, in order to diminish, as much as possible, the inconveniences which we attribute to artificial nourishment. It is surprising that ass's milk, which approaches nearest to that of woman, and which is most easily digested by weak stomachs, has not been employed for this purpose. Be this as it may, it is always advantageous to add to this regimen good bouillons, and some yolks of eggs dissolved in water, for the purpose of correcting the tendency to acidity which strange milk never fails to develope, doubtless, because of the wholly vegetable diet of animals.

2. *All kinds of farinaceous preparations (bouillies) and legumes (potatoes, &c.).* All farinaceous preparations that have not been fermented or well cooked are necessarily difficult of digestion. The chyle they furnish is pasty, of a weak consistence, and very unfit for assimilation; it circulates slowly in the lacteals, stops, and occasions obstructions. Such inconveniences as these arise from the abuse of potatoes as a diet. I have remarked that scrofula is very common in all the countries where children are nourished on this root.

3. *Food that is too watery*, such as certain vegetables, which, besides being poor in nutritive principles, are also hurtful by the debility they occasion, and by the tendency to acidities which they excite in the stomachs of such as are nourished by them.

4. *The habit of giving to very young children a variety of aliments, without distinction or choice, and of per-*

mitting them to eat of every article that is pleasing to the taste of adults. These aliments may be good in themselves considered, but they are not proper for stomachs with whose sensibility they have not a just relation: it is in this sense they are said to be difficult to digest.

5. *The bad habit* of cramming children with food; whence results a bad digestion, bad chyle, and lastly the scrofulous diathesis.

All that we have hitherto said is equally true of natural and of legitimate children, which adds confirmation to the hereditary doctrine as applied to scrofula. The privation of the maternal care and the maternal breast, unwholesome nourishment, the abuse of aliment, filthiness, venereal excesses: such are some of the predisposing causes of this disease. One very singular thing is, that all the natural children I have ever known have been scrofulous.

6. *Unwholesome air.*

This is one of the most powerful and frequent causes of the disease in question.

The air most favourable to its development is,

1. An atmosphere that is cold, damp, and dark. This is the reason why scrofulous affections are almost endemical in low places, particularly with a northern aspect; in narrow valleys impenetrable to the light. For the same reason it is more common in the north, than in the south. It is rarely seen under the tropics, but is frequently met with on the shores of the sea, and particularly in England, among children that live in low and damp places; in mountainous countries exposed to all the inclemency of the seasons, and in valleys that are incessantly traversed by cold and damp winds. *Goitre*, which is a local affection, is endemical in moun-

tainous countries. It has been remarked that the labour required in clambering up the mountains, the water of these places, and the cries of women in labour favour the development of this disease. *Cretinism*, a general affection, which I regard as the highest degree of the scrofulous diathesis, and which is endemical in the deep valleys of the Tyrol, and the Pays de Vaud, is visibly the effect of cold, humidity, privation of solar light, a highly carbonated atmosphere, and perhaps also of a peculiar modification of the atmosphere, which chemistry has not yet been able to detect.

The influence of light on life, on the qualities of the air, and on the production of the scrofulous taint, has not been sufficiently felt. Without light all nature languishes, the air is not vital, vegetables etiolate and perish, and even animals acquire only an incomplete development. Arising by innumerable radicles from every point of the cutaneous surface, the lymphatic system absorbs from the air the principles of life, just as the plant draws from the bosom of the earth its nutritive fluids. They both etiolate in darkness and prosper in the light of the sun. Hence we may account for the rarity of scrofulous disease in warm countries.

2. An inconstant and variable air; this is the reason why the scrofulous diathesis is so common in mountainous countries.

3. An air highly carbonated, and charged with animal vapours; hence the disease affects so much the habitations of the poor, and manufactories, where a great assemblage of persons impresses on the air a peculiar modification, which I call *animalized*. This modification depends on two causes: exhalations constantly disengaged from living bodies, and the absorption of those aerial principles which are necessary to the main-

tenance of life. Under this view, a residence in the country is far preferable to one in cities. In fact the larger and more populous is any city, the narrower its streets, and the higher its houses, the more numerous will be scrofulous subjects in it.

It is not possible to conceive of the whole influence of bad air in producing the strumous habit, though this influence, natural enough, is explained on the supposition of suspended cutaneous functions, the filthiness which follows, the debility which results from it, and an absorption of the deleterious principles of atmospheric air.

7. Every thing that weakens the digestive powers.

1. The inconsiderate and premature use of tea and coffee, to which children are sometimes subjected, and generally the abuse of all hot drinks.

2. The abuse of medicines that excite a direct action on the primæ viæ; such are emetics, purgatives, and what are called stomachics. Far from strengthening the digestive tube, tonics and astringents, exhibited without due precaution, destroy its natural energy; weakness soon increases, and is communicated to the glandular and lymphatic systems; assimilation is imperfectly effected, even the chyle is altered, and the scrofulous symptoms become manifest.

3. Those diseases which primarily occasion, or leave after them a debilitating impression in the digestive organs, such as protracted, gastric, mucous fevers, &c. whooping cough, and all the violent kinds of cough.

8. Acidities in the primæ viæ.

It is easy to conceive that if the stomach of a child becomes affected with acidities, assimilation will either not take place at all, or will be imperfect; the lymphatic

tic system, irritated by chyle of a bad quality, will soon become obstructed, &c. At all events, experience has proved that children who are subject to acid stomachs frequently become affected with the scrofulous habit.

9. *Intestinal worms.*

Worms exert a double influence in occasioning the scrofulous diathesis, by altering the chyle, and by irritating the digestive tube.

Whatever may be thought of this explanation, experience proves that there is too much connexion between the verminose affections and the scrofulous diathesis.

10. *The abuse of opium and other narcotics in childhood—incomplete crises.*

Although I have shown myself to be on other occasions a sufficiently warm admirer of narcotics, I am nevertheless willing to admit, that nothing is more injurious to children than the abuse of these medicines. This abuse, equally injurious to the vital properties, and to the intellectual faculties, tends to the production of the scrofulous taint. My opinion is founded on the following:

1. As narcotics diminish the digestive powers, the debility is propagated from the alimentary canal to the absorbing vessels, absorption languishes, the movements of both the lymphatic vessels and glands become slower, giving rise to bad secretions, and a vitiated chyle. Thus, either an excess or diminution of irritability is equally hurtful.

2. Narcotics interfere with the perfecting of crises, a phenomenon to which it is the more necessary to call the attention of physicians, as the doctrines of the age are very favourable to the employment of opium. No

one, whether humouralist or solidist, can but confess that the ideas of crisis and concoction are founded on the very nature of the animal economy. The essence of disease consists in the vital reaction by which nature opposes the operation of morbid causes, and the event depends on the relation which may be established between this reaction and the cause that excites it. Nature, then, has need of a certain degree of energy, and of a given length of time, in order to triumph over her enemy, whether she expels it from the body, or reduces it to nothing. There is, therefore, a period in disease when nature commences this operation, as there is also one in which she does not lend herself to it; or what amounts to the same thing, there are periods of crudity, concoction, and crisis. There can be no crisis without reaction; if, then, you deprive the vital powers of the ability to react, (and this is what will inevitably result from the abuse of narcotics before the elimination of the morbid causes) what will happen? The disease will be prolonged, and you will have to reproach yourself with having hindered its solution, by paralysing the healing powers of nature.

Such is the manner in which, I think, we ought to regard the crises of diseases. Reaction is a boon bestowed by nature, and we ought to respect it. An incomplete crisis may cause an acute disease to degenerate into a chronic one, a local into a general affection; it may convert an easily curable disease into an obstinate, or even incurable one, and occasion a metastasis of morbid principles to the lymphatic system.

It is, therefore, by preventing the accomplishment of crises, that narcotics may determine the scrofulous taint.

I am so well convinced of this truth myself, that I have no doubt that those who will take the trouble to

repeat the same observations I have made, will ascertain that many children are made scrofulous, solely by the use of too much narcotic medicine.

11. *Want of exercise.*

Want of exercise produces debility, and weakness prepares the way for scrofula. Exercise is as needful for children as food. This suffices to show how many evils result from a plan of education whose most essential object is to keep children *still*. Besides the nervous affections, crooked spine, &c. this method manifestly disposes them to scrofula; experience proves, on the other hand, that those children who pass their time playing in the open air, are rarely affected with it.

12. *Want of cleanliness.*

Under this head I comprise confined air, the neglect of baths, and of washing. It is a fact, that when the skin is not regularly washed, excrementitious matter accumulates upon it, which ends by being reabsorbed. The functions of the skin become deranged, weakness takes possession of it, and is gradually communicated to the entire constitution, and principally to the lymphatic system.

Want of cleanliness is, in my opinion, so powerful a cause of the scrofulous diathesis, that I am convinced its greater frequency in our days is very much owing to the little use we make of baths compared to the habits of the ancients. Further, I am not afraid to assert, that there is no child, however healthy, which may not be rendered scrofulous by filthiness, bad diet, unwholesome air, and want of exercise.

13. *Abuse of heat.*

'The habit of making children sleep on feather beds,

of warming the bed, and of keeping them always very warm, produces a tendency to perspiration, and a consequent general debility, together with a constant state of irritation. It is in this way that heat produces the scrofulous diathesis.

14. *Precocious studies.*

It is not without reason that a precocious application of the mind to study has been numbered among the causes of the scrofulous diathesis. The culture of the body ought to precede that of the mind. The former should be permitted to acquire a certain degree of strength before we think of putting the other in training. If this order is inverted, what happens? The powers destined to promote the development of the body are lost; the lymphatic system falls into a state of atony; its functions are imperfectly executed: whence proceeds a bad lymph, bad chyle, and finally the scrofulous diathesis. This *cause* is the more to be feared, as premature intelligence is one of the characteristic traits of the strumous constitution. Nevertheless, if a child exhibits more intelligence than is common with children of his age, the parents rejoice at it, and think only of cultivating such happy dispositions. But, alas! all their care ends only in confirming the native disposition with which it is tainted, and which by a more suitable method might have been obviated.

15. *Too early exercise of the sexual organs, onanism.*

I am acquainted with several cases of scrofula produced by this cause alone. It acts like the preceding one, that is to say, by producing debility, and irregular distribution of the bodily powers.

16. *Mournful affections of the soul.*

Care, fear, a tyrannical education, envy, &c. diminish the powers, while they maintain the vessels in a constant state of spasm. They may be supposed to occasion scrofula, as they produce scirrhus and cancer.

17. *The abuse of cold.*

The abuse of cold, like that of heat, is extremely favourable to the development of the scrofulous diathesis. From the time when the English practitioners began to extol the employment of cold baths, and a glacial atmosphere, as means of strengthening the constitution, it was not uncommon for this disease to appear in children who had been subjected to so irrational a treatment. And, really, it is not surprising, if we advert to the intensity of the irritation and spasm which this treatment exerts on the lymphatic system. Debility could not but succeed irritation.

II. OCCASIONAL OR EXCITING CAUSES.

1. *Development of the body, growth.*

The natural development of the organs, growth, are for the major part, as we have before said, the work of the lymphatic system. There are, in the course of life, certain epochs, at which this development takes place with extreme rapidity, and the lymphatic system is then the seat of a considerable irritation. This is evidenced by swellings of the glands, which appear at those periods, and which, for this reason, are called *growing kernels*; tumours, which disappear as soon as the organs acquire the degree of perfection of which they are susceptible. Now, the lymphatic system, being the seat

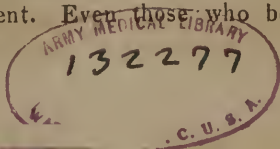
of the scrofulous diathesis, it is easy to conceive, how the part it plays in the development of the body may set up this diathesis, enforce it, and even realise the disease where the diathesis already exists. Thus, when the body pushes a very rapid growth, as for example, at the period of teething, and of puberty, it is not uncommon to find all the symptoms of the scrofulous habit making their appearance; whence I conclude that the taint was latent, and only required favourable circumstances to occasion its manifestation.

This serves to show why these epochs have so much influence in the development of pulmonary consumption and rachitism, which, as is well-known, are often effects of the scrofulous taint. However, if irritation of the lymphatic system favours the development of a scrofulous habit, it must also be confessed that it sometimes effects a cure of it; but these cases are more uncommon.

2. *The seasons.*

If I can depend upon my own experience, the spring is most favourable to the development of the scrofulous habit. In fact, glandular engorgements and cutaneous eruptions are never more common than at this season of the year. The return of warmth excites in all organised beings a turgescence, to which the human body is not left insensible. The nervous system acquires new energy; the generative organs awake from their sloth; the fluids circulate more freely, and any latent disease will now be developed with extreme rapidity. But of all the systems of the human body, not one is so much alive to the influence of this season as the lymphatic system, and hence the appearance of the scrofulous disease is then frequent. Even those who believed

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themselves perfectly cured have at this period suffered relapses which even their physicians did not expect.

The summer, particularly if rainy, produces in some persons the same effects as the spring.

3. *Mechanical causes.*

Mechanical causes, such as contusions, wounds, blows, falls, &c. never engender the scrofulous habit; but frequently occasion it to manifest itself. Hamilton and Weber have cited instances of this kind. I suspect that these causes unite in their *modus operandi*, the effects both of stimulant and debilitating causes.

4. *Diseases of irritation.*

Here, undeniably, we find one of the most common determining causes of the disease we are considering. Doubtless, those diseases which attack the lymphatic system, all those that affect the digestive tube, may rouse the scrofulous habit into activity, especially in children, who are already predisposed.

But these diseases much more certainly produce the effects we attribute to them, when they terminate by incomplete crises, or when a metastasis takes place to the lymphatic system. In either case, it is highly important to know whether a predisposition to scrofula exists, or not: in the former case, the glandular swellings are idiopathic, in the latter symptomatic.

It seems natural to some diseases to terminate only by incomplete crises: such are variola, rubeola, scarlatina, &c. The remains of the morbid virus attack the lymphatic system; and it is not uncommon to see them followed by the scrofulous disease.

The vaccine itself, a very slight affection, commonly unattended with fever, provokes the appearance of scro-

fulas in persons who are predisposed ; so that, after the termination of the eruption, we see glandular engorgements make their appearance, with other symptoms of the same nature, and which are falsely considered as dependent on vaccina, while they have no natural connection with it.

The same may be said of small pox, which, as is well known, has its seat in the lymphatic system.

Lastly, the appearance of scrofulas is often the effect of an ill-timed method, of a suppressed crisis, or a bad treatment. I know that in such cases accusations against the medicinal means are not wanting : but ought not the hand that administers them to be responsible for the effects they produce ? Let us be bold enough to say, that, if it be true that an incomplete crisis, or a metastasis furnish occasions for the manifestation of the scrofulous habit, it is not the less true, that in many cases this crisis and this metastasis are often the work of the physician, in the prodigal use he makes of debilitants when nature has need of strength, or of tonics when she needs to be debilitated. Any medicine possessed of somewhat active properties may, if badly administered, produce the effects under consideration ; such are bark, opium, cold, mercury, by retaining the *critical movements* within the interior of the body ; astringents, and spirituous preparations, by favouring metastasis.

CHAPTER III.

Of the nature or proximate cause of the scrofulous disease, and its concern in the production of scrofula.

What we have just said of the remote causes of the scrofulous disease may serve to enlighten us in regard to its proximate cause.

It appears to me, that this cause consists *in a profound atony, accompanied with a specific irritation of the lymphatic system; and in a peculiar alteration of the lymph.*

The advantage of this definition is, that it explains the nature and origin of the symptoms which characterise scrofula: this I shall now attempt to prove.

1. *The scrofulous taint has its primitive seat in the solids, and not in the fluids.*

1. In fact, an hereditary affection must necessarily consist in a modification of the solids.

2. Any affection that may depend on weakness or exhaustion of parents, must of necessity reside in the solids; for the strength and energies of the constitution depend on the solids.

3. The major part of those causes which produce the scrofulous taint are either irritating or debilitating, both act on the solids.

2. *The scrofulous disease consists in a great degree of weakness and atony of the lymphatic system connected with a specific irritation of the same system, and in a peculiar alteration of the lymph.*

Irritation and weakness,—such is the double character of the scrofulous disease. Irritation without weakness does not give us an exact idea of it; otherwise, all irritation of the lymphatic system would produce the scrofulous diathesis. Thus, variola and the scrofulous taint ought to be one and the same. The truth is, however, that in the latter the lymphatic system is at the same time too highly excited and too much debilitated, whether the weakness may have preceded the irritation, or whether it may have followed it.

There is weakness, because :

1. The weakest parents are most liable to give birth to scrofulous children.

2. The affection attacks precisely that age and sex wherein weakness predominates; that is to say, children and women.

3. Most of the essential causes are of a debilitating nature.

4. The whole aspect of scrofulous persons bespeaks weakness and relaxation of the constitution.

5. Mechanical causes may, doubtless, occasion tumefactions in the glands; but these swellings are altogether symptomatic; they are false scrofulas. I repeat it, there is no scrofulous disease without weakness; and an irritating cause can only determine the disease in subjects already very much debilitated.

6. Tonics only are capable of destroying the scrofulous disposition.

That there exists at the same time a state of irritation is proved by the following:

1. Most of the occasional causes are irritating; such are mechanical causes, the natural development of the organs, cold, &c.

2. The slightest irritation of the lymphatic system sometimes suffices to bring to light the scrofulous taint.

3. Most of its symptoms announce a disease of irritation.

4. Antiphlogistics cause most of the symptoms to disappear, though they are incapable of destroying its germ.

3. *The proximate causes of the scrofulous disease exist in the fluids as well as in the solids.*

The etiology of the scrofulous taint is a subject full of errors. Because its proximate cause resides in the lymphatic system, it is pretended we ought to seek its occasional causes only in the solids; consequently, no account whatever is taken of the fluids, whose influence nevertheless, is sometimes immense. I cannot sufficiently repeat, that, to estimate correctly the condition of any system of organs, we must take into consideration both the system itself, and the fluid which circulates in it, for their influence is reciprocal. But if this rule is of general applicability, we ought, *a fortiori*, to conform to it when judging of a system, which draws the greater part of its materials from without the body and in the alimentary canal; materials that are far from having acquired the degree of elaboration necessary to fit them to be identified with our organs.

I may be permitted, therefore, to enter into some details for the purpose of explaining how the fluids which circulate in the lymphatic system may alter that system so as to dispose it to take on the strumous diathesis. This explanation will be the more proper in this place, inasmuch as, since the pathology which refers every thing to the nervous system has begun to acquire a greater prevalence, the humours are accounted as nothing.

Nevertheless, the fluids determine,

1. The tone and degree of cohesion of the solids, and particularly those of the lymphatic system. Doubtless, this cohesion depends on the materials, and various principles which penetrate into the body: the humours, therefore, must serve as a vehicle for them.

2. The fluids are the natural stimuli of the vessels; in other words, the vessels only act in consequence of irritation produced by the humours they contain; this is one of the laws of nature. However, we are never told of any thing except their own irritability as the cause of their movements. We do not reflect that irritability is nothing but the faculty they possess of moving themselves. But, what would become of this faculty, if there was nothing to put it in play? But for a moving cause, an irritation, the irritability would be useless. The heart itself, the most irritable of all the organs, ceases to act when the blood ceases to flow into it.

The fluids, then, are the natural stimulants of the solids, the *mobiles* of all the functions; which proves, by the way, that the fluids are worthy of consideration in a system of pathology. Every fluid irritates, in its own peculiar manner, the vessels in contact with which it is placed; or, in other words, there is a mutual relation between the sensibility of the vessels and the impression which the fluids make on them. Blood is the natural stimulant of the sanguiferous vessels, bile of the liver, and lymph of the lymphatic system, &c.

Not only do the fluids irritate the organs, but I am convinced they are alive, and that they cause the solids themselves to be vital.

From what has been said, it appears that the humours exercise a great influence on the organs. In fact, the energy of the latter is always proportioned to the impression of the former. If the blood is not sufficiently

irritating, the circulation languishes ; if the lymph produces an insufficient impression, its movement diminishes, and hence we have congestions, engorgements, &c. But if, on the contrary, these fluids are too irritating, both the sanguineous and lymphatic vessels redouble their movements, and the circulation becomes deranged. The secretory organs themselves fulfil their functions only in virtue of a specific irritation, so that their functions must vary according to the state of the fluids they receive.

3. As the humours antagonise the pressure of the vessels, the force of the latter must be estimated by the mass of fluids they are destined to move. As long as this force is proportioned to the resistance of the fluids, an equilibrium is preserved ; but, if the quantity of fluids is augmented, or if they acquire a consistence greater than natural, the vessels yield, and weakness ensues.

If the fluids exercise so great an influence on the organs, is it any matter of astonishment that the lymph may change the condition of the lymphatic system ? It remains now for us to show what are the alterations of this humour that are capable of producing the scrofulous diathesis.

1. Lymph that is too thick, too viscid, and unfit to make on the lymphatic system such a degree of impression as is required to sustain and ensure the performance of its functions.

2. Lymph that is too thin, too watery ; a sure sign of want of animalization.

3. Lymph that is too irritating ; this is the case with such as is surcharged with acid, alkaline, saline, and other principles ; and also such as is derived from bad nourishment. Both irritate the lymphatic system and disturb its functions, whence arise obstructions and a disposition to the scrofulous taint.

4. Too great a quantity of lymph.

As to causes capable of altering the composition of the lymph; leaving out of consideration any primary alteration of the lymphatic vessels: they are,

1. The quality of the aliment, by which the character of the chyle is always more or less modified.

2. The state of the digestive powers, on which depends the perfection or imperfection of assimilation.

3. The qualities of the air, the most subtle principles of which we absorb.

4. The state of the cutaneous and pulmonary functions.

5. The state of the secretions and of nutrition. The absorbents operate sometimes on hurtful substances; so that the lymph may degenerate without the occurrence of the least alteration of the lymphatic system. This is proved by the jaundice, in which the absorbent system is manifestly the seat of the disease.

4. *The affection of the lymphatic system which constitutes the scrofulous taint, alters the quality of the lymph (this is what is called acrimony of the lymph, scrofulous virus).*

We are now arrived at the most difficult part of the subject. What is the scrofulous acrimony, its origin, and its mode of acting? I will treat of all these subjects in the following chapters.

CHAPTER IV.

Of the formation of the scrofulous acrimony.

Before entering into any details on this subject, I deem it necessary to explain what are the opinions we should hold as to the nature of the scrofulous acrimony and its *formation* or establishment ; opinions which the *vitalists* endeavour to subvert, however important they are for the explanation of several pathological and therapeutical phenomena. But, let us not be imposed on by mere words.

In the first place, it is incontestable that the idea of this acrimony can not be obtained, either from the principles of Chemistry or Mechanics, and that we must seek for it in a view of the vital properties.

If it be true, as indeed it can not be doubted, that all the fluids of the human body are specific stimuli, that is, if they enjoy the faculty of producing impressions that are relative to the sensibility of the vessels which contain them, it will doubtless be admitted, that this faculty is susceptible of being either augmented or diminished. Now, its augmentation is what I call *acrimony*. In other words, whenever any humour is more stimulating than it is in its natural state, there is acrimony of that humour (*acrimonia, dyscrasia acris*).

Hence it follows, that there is no absolute acrimony ; it depends entirely on the proportion (*rapport*) between the sensibility of the solids, and the impression of the fluids. Thus, what is acrimony for one individual, may not be so for another ; and even in the same individual, a humour may be too irritating for one organ while it is

not so for another. There is an analogy to this phenomenon in the action of tartar emetic, which is so stimulating to the stomach, while it is not at all so to the tongue.

That our humours are susceptible of variation in composition will not be called in question by those who are acquainted with the diversity of the principles of which they are constituted, and the elaborations they undergo. But, if any one is incredulous, let him take the trouble to compare the blood of a person attacked with inflammation with that of a patient in putrid fever or chlorosis.

But how is this acrimony produced, how is it developed? Must we, before we can solve this problem, examine all the various lesions of which the human body is susceptible? No, it is sufficient if we determine its relations to surrounding bodies. These relations are, 1. Mechanical; 2. Chemical; and 3. Organic, or vital.

Man, the most perfect of creatures, may be affected by mechanical or chemical causes; but, let us never forget that the effects of these causes are always under the influence of life. It would be quite as erroneous, to say, that mechanical and chemical agents have no influence on him, as it would be to assert, that they act on the human body as they do on brute matter. It possesses, I repeat again, a principle of life, which is concerned in all its operations, all its phenomena; so that the most simple of these phenomena will be found, on a close analysis, to present something of a vital character.

If then we exclude the laws of mechanics, and of chemistry, from our explanations of the functions of animals, or if we square every thing by those laws, to the exclusion of the vital forces, we shall in either case fall into extremes. The vitalists, the humouralists, and the chemical pathologists, are all too exclusive, each in

favour of his own party. There is no system without something good: we must combine them—here we ought to direct all our efforts.

From what we have said, it is easy to acquire an idea of the formation or development of the acrimony of the fluids. This acrimony may depend :

1. On an increase of irritating molecules, introduced into the body, either with the aliment, or by means of cutaneous absorption.

2. On the decomposition of the parts: but I must explain. There are acids in the human body, which as long as they remain in a state of combination do not act as acids; but their action is manifest as soon as they become free. They naturally increase the acrimony of the humours by mixing with them.

This decomposition may be the result of chemical affinities, or of a diminution of the vital forces. In fact, while these forces are in a good state they resist the laws of brute matter; but as soon as they lose their energy chemistry begins to exercise its rights.

3. On bad assimilation. I mean by assimilation, that which passes from the external world into the interior of the body, to become identified with it. Every thing indeed that resists assimilation is foreign to our being, and every foreign substance is irritating. Assimilation is effected by the digestive tube, the lymphatic system and the glands.

4. On suppression or alteration of the secretions and excretions.

5. On excess or deficiency of vascular movements. If the movement is excessive, we soon see the symptoms of irritation; the temperature of the body augments; it favours the decomposition of the organs; the secretions are disturbed, &c. Is the movement deficient? the fluids are badly mixed, the secretions languish, assimilation is imperfect.

lation is imperfect, and hence that sort of chemical decomposition indicated in No. 2.

Our next business is to explain the formation of acrimonies, and particularly that of the scrofulous acrimony.

The vicious state of the lymphatic system, to which we have attributed the proximate cause of the scrofulous diathesis, cannot fail to produce the worst effects on the lymph. These effects, which experience has made us acquainted with, are :

1. *Stagnation of the lymph.*—The lymphatic system, which is at once too weak and too strong, is able with difficulty to circulate the lymph, especially if this fluid happens to be more or less viscous.

There are a great many engorgements, and particularly such as have a scrofulous origin, that are owing, merely, to spasm of the lymphatic vessels. They are the pure and simple effect of spasmodic irritation: and therefore readily disperse under the influence of narcotics; or at least these medicines are indispensable in effecting their resolution, (such is cancer, which Boerhaave regarded, with reason, as a disease of the nerves). Other engorgements are the consequence of weakness of the vessels. Professor Sæmmering has very well said, in his translation of Baillie's *Morbid Anatomy*, that we ought not to regard as glandular obstructions what are commonly so called, since mercurial injections traverse them without difficulty. In general, the cause of these tumefactions is much more due to a state of the vessels themselves, than of the fluids within them. At death the spasm ceases, and the channels become free again. Sometimes, during life, there exists no mechanical obstacle whatever; but the weakened vital forces retard or suspend the circulation of the lymph. This sort of obstruction can only exist during life, and while

spasm or inaction of the vessels continues; the anatomist finds nothing of it in the corpse. This case is completely analogous to what passes in the intestinal canal and the air passages in *volvulus* and *angina pectoris*. Whence I conclude, that the circulation may be completely intercepted, and occasion death to take place, and yet, the vessels appear perfectly free in the dead subject. This, by the way, proves that the conclusions deduced from pathological anatomy are not always infallible.

But things are not always so; if the course of the humours is suspended for a long time, they end by becoming inspissated, and then a real obstruction takes place.

2. *Vicious accumulations of lymph in a cavity.*—If resorption does not take place in due proportion to exhalation, this fluid accumulates in the meshes of the cellular tissue, and in the cavities. It is in this way that dropsies, *œdema*, &c. commonly called lymphatic tumours, are formed. The excessive dilatation of a lymphatic vessel is ordinarily owing to no other cause than an obstruction to its circulation. This, doubtless, is the real mechanism of certain hydatids, (for they are not all vesicular worms) that I have several times found in the brain of subjects affected with the scrofulous taint.

3. *Irregularity in the course of the lymph.*—It is not improbable that a change in the ordinary course of the lymph may produce unnatural extravasations and congestions of that fluid.

This irregularity may depend on spasm, reversing the movement of these vessels, or an excessive relaxation of the valves with which they are furnished.

4. *Alterations of the lymph (properly called scrofulous acrimony).*—I conceive that the lymphatic vessels alter the lymph, either by suspending its course, by disabling the lymphatic and mesenteric glands from effect-

ing the assimilation which they are charged with, or finally, by producing a vicious secretion. All secretions depend on the impression on a secretory organ of the fluid destined to furnish the materials for those secretions. Whence it follows, that, as this impression varies, the product of secretion must vary also. Suppose then, that this impression acquires a specific character, no matter what, such character will necessarily pass into the product of secretion :—thus all acrimonies are formed.

It clearly results from the foregoing, that if the lymphatic system is once vitiated in a certain way, the scrofulous acrimony derives from it, as the effect is derived from the cause. In other words, the scrofulous acrimony is nothing else but lymph changed by the influence of a correlative state of the lymphatic system. And I think that no one, not even the most decided partisan of vitalism, can find any solid objection to this definition, since it flows from the very nature of the scrofulous disease, considered as lesion of the vital forces.

From this view of the scrofulous taint it is clear that this affection consists in the two fold alteration of solids and humours. The latter, by their action, increase the irritation of the vessels, the disease which was local becomes general, the acrimony pervades every part with the lymph, and the scrofulous disease is propagated from point to point, until it involves even those tissues which are least abundantly furnished with lymphatic vessels. Metastases take place: scrofulous phthisis, for example, is much oftener the result of a metastatic translation of the scrofulous taint to the pulmonary organs than of a primary affection of them, as Sæmmering has judiciously observed.

The scrofulous diathesis is subject to the same forms

and laws as the humoral affections. The external and internal symptoms mutually destroy each other. It is no rare occurrence to see the affection of the lungs yield to a discharge from the eyes or ears; I have seen a hectic fever, attended with convulsions, cease on the appearance of a scabby eruption on the head, and reappear upon its drying up; in another case I saw a low mesenteric fever vanish under the influence of a general obstruction of the external lymphatic glands.

Is there any one who can not perceive, in these cases, the passage of a material substance from one organ to another? Who can deny that this view of the disease under consideration exercises the happiest influence on its treatment, inasmuch as on this theory is founded the indication of combining local with general means, and especially with revulsives and purgatives, which very probably would not be indicated if the scrofulous vice were a pure and simple affection of the solids?

CHAPTER V.

Of the nature of the scrofulous acrimony.

I know very well that it is customary to employ in researches of this kind, the chemical analysis of the object under review; but, being well assured that it can add nothing to the medical knowledge of scrofula, I shall pass on to more important considerations.

What do we mean by the *nature* of a thing? And to confine ourselves within the proper limits of our subject, what is the nature of the scrofulous acrimony?

Two meanings are attached to this word, nature: Some understand by it the intimate essence of any object. But philosophers begin to renounce this sort of research, and the chemists themselves are content to designate the constituent parts of the object they study by the name of *principles*, to teach us that we can not penetrate the secrets of nature.

Others understand by *nature* the mode of being, or relations of one thing with another. But as these relations may be more or less numerous, which is the one we wish to speak of? 'This it is our business to ascertain.

The relation of one body to another may be either mechanical, chemical, or organic or vital; whence I infer that I may consider its nature under this triple relation, according to the end I have in view. 'The chemist studies only dead nature; such a study is insufficient for our purpose.

1. It is necessary for the physician to know how this or that morbid principle, this or that curative means, is affected by living nature. Life alone is his domain. It is necessary then for him to study the action or influence of inorganic substances on organised beings, and especially on living man. I ask, what can the most profound study of any medicine teach us concerning its effects on the human body? Nothing, or nearly nothing. No one, so far as I know, has been able to determine these effects *a priori*. There is no proportion between a thing that lives, and one that does not live; they have different modes of existence, and consequently have different laws. I may say the same thing of the chemical analysis of morbid causes; the most perfect, the most rigid of these analyses would be incapable of teaching us beforehand the influence of these causes on a body endowed with life. The only ana-

lysis of medicines and of morbid causes which can be really useful to the practitioner is the analysis of the effects they produce on the human body.

2. Even although chemical analysis might not be useless, it at least could never reveal to us the morbid principle. And, indeed, where could it find this principle pure, and without admixture? It would be a gross mistake to expect to find it in the pus of an ulcer, or in the lymph itself: not that these fluids do not indeed contain the scrofulous acrimony, but it is mixed there with so many other elements, that it is absolutely impossible to distinguish it. Thus, in venereal blennorrhagia, and small pox, it would be vain to seek for the venereal or variolous virus, except perhaps when they are expelled from the body by irritation; but scarcely do they cease to be under the influence of life, when they pass, at once, under the laws of brute matter, and then every thing is changed.

Finally, far from enlightening us in regard to the treatment, chemistry would rather lead us into error; for it can disclose to us effects only, and experience has proved that there is no solid treatment but that which is founded on the morbid causes, and not on the symptoms. Thus, suppose that chemistry should discover, for example, the presence of an acid, say the phosphoric acid, as the material principle of a disease; the physician, who, building on this discovery, should lavish alkalis and absorbents on his patients, would practice symptomatic medicine, the worst kind of all. Indeed, it would still remain to inquire, whence the acid is derived: is it a new product, or did it exist in a combined state in the body? In fine, if all these questions should be solved, I maintain that he who should permit himself to be guided by these theories, would do more harm than good in practice.

Regarded in a medical point of view, the question re-

lative to the scrofulous acrimony is reduced to an inquiry, as to what is its mode of action on the human body, or which is the same thing, what are its immediate effects. Now, in this view, and in the actual state of our knowledge, these effects are as follows:

1. It not only irritates the lymphatic system but the nerves also; witness the spasms and convulsions to which scrofulous subjects are liable. By mixing with the blood it also irritates the vascular system. I have seen scrofulous children that were pale, poor and wasted; febrile attacks succeeded this state, and these attacks being followed by eruptions on the head the children rapidly recovered their health. These crises not unfrequently return periodically for several years, until at last no trace is left of the scrofulous diathesis. It has been remarked that this diathesis principally affects the secretory organs, as the eyes, lungs, liver, &c. and in consequence becomes the principle of several diseases which are apparently very different, though in reality the same.

In an advanced period of the disease, the scrofulous acrimony sometimes acquires such a degree of causticity as to corrode the bones, and produce ulcers of the worst character. The blandest secretion may become the most irritating. Thus, I have seen ophthalmies, in which the tears manifestly inflamed the cheek on which they fell and the hand that wiped them away.

2. The lymph acquires a manifest tendency to become inspissated. This is clearly seen in every portion of the cellular tissue where this humour accumulates. I have sometimes had occasion, after death, to examine this kind of lymphatic thickening about the elbows and knees; it has always appeared to be firm, consistent, and in some points even cartilaginous. It is often observed in the thyroid gland, the lungs, the mesentery,

&c. Lastly, gibbosity and deviation of the vertebral column depend most commonly on accumulations and thickening of lymph about the ligaments, and even in the bodies of the vertebræ and ribs.

3. The lymph loses its nutritive property. It is true there is a period when scrofulous persons look very well, but their good health is only apparent, and deteriorates in proportion to the progress of the scrofulous vitiation.

4. The lymph contracts a tendency to acidity. Thus, acidities of the primæ viæ are sometimes determinative causes of the scrofulous diathesis, and, on the contrary, sometimes the effect of it. This effect is, indeed, one of the characteristic features of the scrofulous acrimony. But, it would be difficult to say, what is the nature of these acids.

Nevertheless, their presence is recognized :

a. By the green colour of the stools.

b. By the acid odour of the air exhaled from the lungs in breathing, the sharp appetite, and all the symptoms indicative of acids in the first passages.

c. By the acid smell of the perspiration ;

d. By the imperfection of the bile, which, being insufficiently elaborated, does not sufficiently excite the intestines.

This tendency to acidity may result from solution of the constituent principles of the lymph, and defective assimilation of the nutrient fluids.

5. Arrived at its highest degree the scrofulous blemish is frequently associated with a putrid condition, characterized by colliquative sweats and stools, oft repeated hemorrhagies, ulcers of a vinous colour, and other symptoms of the same kind. This has occasioned some authors to say that it is not a rare thing to see the scrofulous diathesis complicated with scurvy.

6. I believe that at this period the scrofulous disease may become contagious. I know this is not the opinion of Cullen, and of many other equally estimable physicians. I even admit that daily observation seems to condemn me. But I beg my readers to suspend their judgment, until I shall have laid before them my ideas relative to the contagion of the disease which forms the subject of this work. Perhaps I may be fortunate enough to reconcile sentiments that are in appearance contradictory.

I shall begin by asserting that the scrofulous diathesis, in itself considered, and as an affection of the solids, is not contagious; but may become so by the effects it develops when arrived at its highest degree of intensity. To proceed :

It is proved by other examples, to which we shall by and by recur, that a disease arising independently of contagion may itself become contagious.

I am inclined to believe, that contagion is one of the effects of the chemical decomposition of animal substances, or what is equivalent, the product of so considerable a degree of putridity, that the organic molecules detached from the diseased body and transferred to the healthy one produce in the latter the same sort of morbid alteration with which they are themselves affected. From this view of the subject, it would appear, that there is no disease, which, having reached the degree of putridity just indicated, may not develop a germ capable of reproducing itself; and this is the reason why it will always be so difficult to pronounce on the contagious, or non contagious character of a disease; inasmuch as there is nothing absolute in contagion. Its effects are proportioned to the intensity of the disease and the disposition of its subjects. Thus it is, that the same affection may be contagious for one person and not for another, either because he does not afford the same or-

ganic conditions, or is not placed in the same circumstances.

I just now said, that there are diseases which may become contagious, although not themselves originating from contagion. I will cite as examples of this sort, the *critical itch*, which appears spontaneously in the course of various diseases; and accidental phthisis, especially that which is found in hot climates. No matter where dysentery breaks out, it will always acquire the direful privilege of transmitting itself by means of contagion, as soon as it shall have attained to its highest degree of putridity. The same is true of miliary fever, gout, and several other maladies. In fine, let a number of fever patients be collected together, and kept in hot and filthy apartments, nothing more will be requisite to the creation of a focus of contagion, as has been unhappily demonstrated by the lazaretto establishments usual in time of war.

Thus, a contagious principle may be doubtless evolved in the scrofulous diathesis; but I think I ought to remark that this principle, being not volatile, can only be communicated by immediate contact, and even by frequent intercourse with the affected persons. It cannot occasion a general infection, for this is accompanied with a peculiar atony of the lymphatic system, which can not be produced by a local cause. But it determines local scrofulous affections; such as tinea, glandular swellings, cutaneous eruptions, ulcers, &c.

However strange this doctrine may seem, I dare believe that it contains nothing but what has been tested by experience.

That the scrofulous disease is not contagious, in itself considered, is a truth of which Cullen, White and Diel have had frequent opportunities of satisfying themselves. I have myself frequently seen scrofulous children sleep

with their brothers without the least injury being sustained by the latter. M. Kortum has gone farther; he, with impunity, inoculated a person with the pus of a *benign* scrofulous ulcer; but for all this it is not the less true, that, when there exists a confirmed phthisis, when the surface of the skin is covered with foul ulcers, and lastly when the patient is cachectic; under these circumstances I say, there is no doubt of the contagiousness of scrofula. This is proved by the examples cited by Weber, Lalouette, Bordeu, Langham and Brouzet, examples which it would be very easy for me to multiply. As to tinea, it is well known to be contagious.

Let us conclude then, that there are local affections of a scrofulous nature which are contagious, and that it would be as unreasonable not to fear it in the last stage of scrofula, as it would be to fear it in the first.

SECTION II.

DESCRIPTION OF THE SCROFULOUS DISEASE.

The scrofulous disease appears under so many different forms, that it is often difficult to recognize it. Sometimes this would be even impossible without a careful examination of the whole of the symptoms, and of the circumstances which preceded them. In order to facilitate the diagnosis of the affection, we have divided it into three periods: in the first it is still latent, but the disposition exists; in the second it manifests itself by all its characteristic symptoms; finally, it tends to disorganization in the third.



FIRST STAGE.

Scrofulous diathesis, or disposition.

In this stage the scrofulous disease is not attended with engorged glands or ulcers, nor any other of its characteristic symptoms. It might be said that the forces of the lymphatic system alone are affected. It is of the greater importance to recognize the scrofulous taint in its first period, because it is then easy to prevent its development, and because the least error in this

regard may be attended with the most unhappy consequences in practice.

It will, doubtless, not be expected that the characteristic symptoms of the scrofulous affection should be found here, since they are not as yet evolved. However, if the signs which appear at this period do not certainly indicate the existence of this affection, they are at least very well calculated to induce us to suspect its presence: but to proceed with any degree of certainty, we must draw our conclusions from the whole of the signs; taken separately they are of no value; they possess the weight of evidence when considered collectively.

I shall proceed then to set forth the circumstances best suited to afford a correct diagnosis of the scrofulous disease in its first stage.

1. Causes of the scrofulous disease.

The disposition of any individual to this disease will be necessarily proportional to the causes that may have acted on him. The more powerful and more numerous these causes, the more is it to be presumed that they have produced their accustomed effect. Among these causes we may place the most reliance on scrofulous or exhausted parents, a damp and unwholesome habitation, the use of farinaceous food, poor diet, and want of cleanliness. As for myself, I have had so many opportunities of observing the influence of these causes, that to know that several of them have been concentrated on the same individual, is sufficient to make me suspect him as a scrofulous subject. I confess they often have more weight with me than the symptoms themselves.

There are countries in which scrofula is endemical, which no doubt depends on the humidity of the air, its composition, the quality of the aliments in common use,

and the regimen and manner of living of the inhabitants. Be this as it may, the influence of localities affords a powerful reason for suspecting the presence of the scrofulous disease; since there are localities in which the affection is so common, that those who are exempt from it are to be considered as exceptions to the general rule.

2. *External appearance, facies.*

There is a habit, an appearance of the body so connected with the scrofulous diathesis, that it is inseparable from it.

This appearance of the body, which I very willingly call the *scrofulous physiognomy*, is characteristic: I mean, it leaves no doubt as to the existence of the scrofulous blemish.

Its principal features are:

1. A short thick neck.
2. The jaws rather stronger and broader than common.
3. The head rather large in proportion to the other parts of the body, especially the back part of the head.
4. Light coloured hair.
5. The face slightly bloated; its skin delicate, transparent, white, somewhat rosy.
6. Most commonly the eyes are blue, the pupils very large. This appearance often indicates a scrofulous state of the mesentery.
7. The upper lip rather thick. This is one among the symptoms which do not mislead us; but I ought to remark that it is sometimes periodical.
8. The nose itself is often a little swelled, red, and shining.
9. The whole body appears to be fat and well nourished; but on a closer examination the flesh is found to

be flabby and soft ; it does not possess the resistance and elasticity which indicate health and vigour.

10. The belly is somewhat larger than it ought to be, although it may not have become as hard as it will be in the future progress of the affection. Sometimes it becomes very large from the very slightest causes.

3. Irregular development of the organs.

One of the effects of the scrofulous disease is to retard the development of certain parts, and to hasten that of others.

1. The development of the teeth, bones, and muscles, learning to walk and to talk, are either difficult, backward, or succeed each other in an irregular manner.

2. The intellectual faculties and those of the generative organs are, on the contrary, most commonly, very precocious. This remark is confirmed by a multitude of facts. Nothing is more common than to see children, tainted with the scrofulous diathesis, exhibit a very active and impassioned temper of soul ; they manifest singular aptitude for intellectual labour, and an irresistible inclination for venereal enjoyments. I have seen several such children who were addicted to masturbation from the age of seven or eight years, which may serve as a lesson to teachers not to mistake a premature development of the intellectual functions as an invariable mark of uncommon genius in their pupils ; and also not always to impute as a crime the dreadful habit of masturbation. Both these phenomena are effects of a pathological condition.

The influence of the scrofulous taint makes itself felt even in the development of puberty : retarded and irregular menstruation often depends on no other cause.

4. *Various ailments generally regarded as unimportant, but which are connected with the scrofulous diathesis.*

1. Frequent bleedings at the nose.

2. Frequent colds.

3. Frequent coughs of a pituitous nature; oppression at the breast; wheezing respiration.

4. Small spontaneous ulcerations peculiar to children, situated on the inside of the lower extremities, and under the arm pits, which do not yield to the ordinary methods of cleanliness.

5. Small pimples, habitually; they are of various forms,—scabby.

6. Increased size of any part of the body, in consequence of lymphatic infiltrations or engorgements; a sort of œdema in which the finger leaves no pit. It is seen in the arms and legs, but more frequently on the face and scrotum. This phenomenon deserves the attention of practitioners.

7. Pains of the limbs along the course of the lymphatic vessels, subject to periodical returns, and sometimes accompanied with evident, but variable tumefaction of the vessels themselves.

8. I have seen only one case, in a little girl, of those whitish discharges which occasionally issue from the vagina, and which have been noted as precursory and diagnostic signs of the scrofulous diathesis.

5. *Disordered digestive powers.*

1. Manifest predisposition to sour stomach, and the symptoms dependent thereon.

2. The stools variable, sometimes too solid, sometimes too liquid; rarely of a proper colour and consistency.

3. Irregular appetite: sometimes it is too good, some-

times there is none at all ; particular fondness for farinaceous preparations and dry bread.

4. Mucous disorders of the bowels: worms.

5. Flatulent distention of the belly—borborygmi.

6. Spasms, and colics.

6. *Scrofulous fever.*

I am persuaded that most of the fevers of children known by the names of gastric fever, inward fever, mesenteric fever, and fever of dentition, are nothing more than the precursory signs of the scrofulous diathesis, or the certain symptoms of its presence; although it may not as yet have manifested all the symptoms peculiar to it. This fever, therefore, might more properly be called *scrofulous*.

Its characters are as follows :

1. It is commonly met with in children under two years of age.

2. It is very irregular; its course and type are indeterminate.

3. Very various as to its duration. In some cases there are only a few paroxysms, followed by a long intermission; in others they continue for several weeks, but then they are slight.

4. The temperature is either not at all or very little augmented: but it has a slight periodical increase. The coldness is more evident.

5. To these are frequently added the disorders of the digestive forces which we have described, and particularly the disposition to acidities.

6. It is not uncommon for it to be attended with a pituitous cough, and a slight wheezing in the respiration; this last mentioned symptom depends on the passage of air through bronchial tubes too much loaded with mucus.

7. The belly is always a little swelled.

8. Resolvents and purgatives procure some relief, but they are only palliatives; sometimes it even happens that they aggravate the disorder instead of diminishing it.

9. The scrofulous disease, unperceived, succeeds to the febrile symptoms which we have just detailed. That is to say, the patient becomes affected with glandular swellings, cutaneous eruptions, scabs on the head, and even marasmus.

It is generally supposed that scrofulas are a natural consequence of the scrofulous fever, and the product of a metastasis. But it seems that this fever is often nothing more or less than the transit or passage from the scrofulous *predisposition* to the scrofulous *disease*; it is the symptom of a profound disorder, and perhaps it is even the means employed by nature to realize the native tendency of the lymphatic system.

Scrofulous fever is a sort of slow fever (*fievre lente*) of an indeterminate genus, but which may be recognized by the symptoms we have assigned to it. It has been sufficient, on more than one occasion, to induce us to suspect the existence of the scrofulous diathesis, and to dictate the line of conduct we were bound to pursue.

SECOND STAGE.

Characteristic symptoms of the scrofulous disease.

In the second stage, the scrofulous disease appears accompanied with all its peculiar symptoms, and falls,

in some degree, under the inspection of our senses. In fact, not only are the vital forces changed, but the organization itself is altered, the functions are disturbed, and it is easy to distinguish the disease from all others by the following symptoms :

1. *The first and most common of all is swellings of the lymphatic glands.*—At first they are small, moveable under the finger, elastic, not painful, and without any change of colour in the skin. Those on the sides and back parts of the neck are commonly the first to feel the influence of the scrofulous taint; the examination of these parts is therefore of the utmost importance in establishing the diagnosis. After these, and even sometimes before, the axillary glands begin to swell in their turn, then come those of the groin, and in some instances those of the whole body.

Their size and consistence gradually augment, engorgement of the surrounding parts takes place, and thus they lose their mobility. It is uncommon for a single gland to be affected; the contagion ordinarily extends to several; indeed they often are confounded together, and form an enormous tumour, or become united without being confounded, so as to resemble a sort of chain (*scrophulæ concatenatæ*). At length, when the disease has reached a certain height, the lymphatic vessels themselves are engorged, and feel like cat gut.

But one thing peculiar to scrofulous swellings, and which is alone sufficient to distinguish them from all others, is a certain sort of *elasticity* well known to physicians, but which can not be described. However, these tumours may remain in the same state during several years; but at the commencement they are variable, appearing and disappearing alternately.

In proportion as the scrofulous taint increases, the glandular tumours become harder and less moveable.

In some cases they remain cold and indolent; in others the skin above them reddens, pain is felt in the centre of the gland, inflammation slowly takes place and suppuration follows; but the pus is always of a bad quality; it does not resemble that of an ordinary phlegmonous abscess. In other cases these swellings pass into a scirrhous and even an osseous state.

In some instances the lymphatic glands acquire an enormous size. They have been seen of ten pounds weight, and even more; but then they can be no longer regarded as scrofulas; they are steatomatous degenerations or encysted tumours, derived however from the scrofulous blemish.

As to their seat, we may divide glandular tumours into external and internal. The first are chiefly found in the situations we have assigned to them; they are sometimes found everywhere; so that the whole body is covered with scrofulas. They establish themselves even in the articulations, so as to affect their motion. In the interior, they are often met with in the mesentery, an organ almost entirely formed of lymphatic glands and vessels. Their size varies from that of a small pea to that of a walnut and upwards. It is easy to conceive what influence the obstruction of these mesenteric glands must have on the elaboration and course of the nutritive juices. It is the cause of that sort of consumption which is known by the title of *marasmus* (*carreau*). Although less common than in the mesentery, these glands are not scarce in the liver nor the spleen, and are sometimes met with in the brain. But next to the mesentery, the lungs are doubtless more subject to scrofulous swellings than any other organ. These swellings, denominated tubercles, constitute the real cause of scrofulous consumption.

Scrofulous glands produce different effects according

to the situation they occupy. They interfere with deglutition, if in the neighbourhood of the pharynx; they occasion attacks of asthma if they occur in the larynx or trachea; and it may be conceived how they may produce lameness, constipation, or diarrhea, &c.

But to pursue the history of the characteristic symptoms of scrofula—

2. *Cutaneous eruptions of different kinds, particularly about the head.*—Scrofulous children rarely have a clean head. In most of them it is covered with little humid ulcers and lenticular pustules, which pour out a humour that is more or less fetid, and sometimes degenerate into real scald head. The appearance of those eruptions which affect the skin is also very various, sometimes resembling tetter, sometimes the itch. Now and then they are found to be very serious and obstinate. The itch, which is symptomatic of scrofula, may by long perpetuation be converted into genuine contagious itch. In fine, it ought to be particularly observed, that the cutaneous affections under consideration have something *critical* in their nature, and act, so to speak, as guides to the disease, leading it from the interior to the exterior surface of the body.

3. *Inflammations in organs which contain a great many glands.*—Ophthalmia, otherwise known as scrofulous ophthalmia, is at the same time one of the commonest and most intractable of these phlegmasiæ.

Its seat is in the glands of Meibomius, and it constitutes one of the essential symptoms of the scrofulous taint. Ordinarily, it is complicated with small ulcers, which pour out a viscous humour, denominated by Scarpa palpebral flux. Those who are affected with this kind of ophthalmia awake in the morning with their eyelids glued together; sometimes they can not be detached, and the patient passes the whole day with his eyes shut.

They mostly evince a great aversion to light, and complain of bad sight; the disease reaches in some examples even to a disorganization of the cornea. It happens not unfrequently, that the humour which escapes from the eyes is so irritating as to inflame and corrode all the adjacent parts. *Fistula lachrymalis*, and frequent returns of what is called *stye*, are also effects of our disease: this ulceration of the tarsus is so characteristic, that we may safely affirm, that children presenting this symptom are *scrofulous*.

4. *Mucous discharges*.—The most common of these discharges are those which take place from the eyes and ears—(*blennorrhœa oculorum et aurium*); nevertheless, the bronchia, and the digestive passages also, frequently furnish an abundant secretion of mucus; and hence, obstinate coughs, pituitous affections of the stomach, bad digestion, &c. Neither is it rare to meet in young girls, with *blennorrhagia* of the genital organs.

5. *Swelling and hardness of the belly*.—The consequence of swellings of the mesenteric glands.

6. *Scrofulous ulcers*.—Scrofulous glands do not always remain in the same state; in the long run they become inflamed, and end in suppuration. All scrofulous ulcers however are not preceded by tumefaction of glands. Some of them are spontaneously developed in consequence of a lesion of the absorbent system, or of a metastasis. In all cases they are easily recognized: they present a foul appearance; the pus is never of a laudable kind; instead of being thick and of a proper consistency, it is clear, watery, and very irritating. From time to time they cicatrize in one place and open in another; they are but slightly painful, obstinate, and tend to perpetuate themselves without end.

7. *Lymphatic swellings*, which are elastic, indolent, of irregular form and size, resulting from the ac-

cumulation of lymph, which may be more or less thick, in the meshes up the cellular tissue ; they may be developed in any part of the body.

8. *Goitre (struma)*.—The thyroid gland and the parts surrounding it sometimes acquire such a volume, as that the respiration becomes very difficult ; the return of blood from the head to the heart is interfered with, and the patient is at the same time menaced with suffocation and apoplexy. This affection often derives its origin from the scrofulous taint ; it is also frequently met with in mountainous countries, where scrofula is itself very common. However, it can not be denied, that it is sometimes local and susceptible of being produced by local causes ; such as letting the throat become chilled, the pressure of air against the air passages in singing, blowing, toiling up a steep mountain, and in the labour of child birth (hence those women who have had a great number of children are more subject to it than others). But perhaps the most remarkable phenomenon in regard to this affection is, that it is endemic in all mountainous countries, depending probably on the qualities of the air and water, and the scrofulous diathesis, which prevails endemically in these same situations.

· THIRD STAGE.

Period of disorganization.

The third stage embraces, in the first place, those cases in which the scrofulous disease passes from its

primary seat in the lymphatic system into the other tissues, and clothes them with unaccustomed forms; in consequence of which it is not always of easy recognition: and secondly, those in which it attacks such organs as are essential to life, and those whose disorganization menaces the near approach of death.

1. *Mesenteric-atrophy, (marasmus).*—In proportion as the mesenteric glands become tumefied and engorged, the elaboration of nutritive principles becomes more and more imperfect; by and by they suspend their course, and remain in the lymphatics instead of proceeding into the general circulation, and from thence into all those parts of the body whose waste they were designed to repair. Such, if I am not deceived, is the mechanism of marasmus, an affection characterized by the great size and hardness of the belly, and the wasting of the lower extremities. Sometimes we find on the skin little glandular crypts, out of which we can press a ceraminous substance like little worms, and which the common people regard as the true cause of the scrofulous disease.

Mesenteric-atrophy is one of the dreadful, and unhappily most frequent terminations of the scrofulous taint.

2. *White swellings of the joints.*—These generally depend on the scrofulous diathesis, and are ordinarily complicated with chronic inflammation of the bones and caries, or they degenerate into caries.

3. *Spontaneous luxation.*—An affection peculiar to the hip, and almost always of a scrofulous nature. The natural effect of this disease is, gradually to produce an accumulation of serosity in the interior of the articulation, which, little by little, displaces the head of the femur from its cotyloid cavity, and makes it rise up on the external iliac fossa, and thus occasions the lame-

ness and shortening of the limb. This disease terminates by ankylosis or caries.

4. *Scrofulous dropsies*.—It is natural that a disease situated in the lymphatic system should interrupt the functions of the absorbents, and that the serosity no longer absorbed should accumulate in some part of the body. This accumulation, for the most part, takes place in the meshes of the cellular tissue of the lower extremities, though it sometimes occurs in the lower belly. Hydrocephalus, both acute and chronic, frequently depends on this cause; and this is the reason why scrofulous children are more subject to it than any others. We have several times seen it take place after the suppression of a discharge from the eyes or ears, and after the repercussion of tinea, either occasioned by inconsiderate applications, or occurring spontaneously; and we have also known it to disappear after the return of these symptoms.

5. *Scrofulous or tubercular consumption*.—The lungs are, without contradiction, one of the organs most exposed to the ravages of the scrofulous taint. Its most common effect is to produce engorgements of their lymphatic glands; whence proceed cough, mucous sputa, dull pain, and many other respiratory lesions. When the lungs are crowded with tubercles, or their number being small when they have attained to a considerable size, the general nutrition languishes, sanguification is depraved, and hectic fever supervenes. Scrofulous phthisis occasions death by rendering the lungs unfit to carry on respiration, since it renders them impermeable to the air (sometimes they are scirrhus), or by establishing suppurations in them.

6. *Changes in the bones*.—Swellings of the bones known as spina ventosa, and caries are often effects of the scrofulous disease in its highest degree of intensity.

7. *Scrofulous cancer*.—It is not a rare thing to see a scrofulous engorgement pass into the state of scirrhus, and even of cancer. This is principally the origin of that humid cancer which is chiefly found on the lips. Cancers of the breast and womb frequently recognize the same cause.

8. *Abdominal consumption, (tabes abdominalis)*.—A kind of consumption caused by obstruction of the principal viscera of the abdomen, or by the formation of new products, such as steatoma, scirrhus, &c. But whatever may be the apparent difference between these lesions, they are all of the same nature, inasmuch as they arise from the same source. Abdominal consumption differs from marasmus, because it does not occupy the same situation and develops itself in adult age, while the mesenteric atrophy is a disease peculiar to childhood. Abdominal consumption is ordinarily followed by death. I have often observed it in individuals who had been scrofulous in childhood, and in whom it was really impossible to attribute the disease to any other cause.

9. *Rachitism*.—This is one of the commonest and most terrible forms of the disease under consideration. Every disease has a favourite situation, if we may so speak: the scrofulous taint often attacks the bones, and what is most remarkable, not unfrequently occupies these parts exclusively; we find neither glandular tumours, nor tubercles, nor any of the symptoms that characterise an affection of the lymphatic system. And yet it can not be doubted that rachitism derives its origin from the scrofulous taint, since it appears under the influence of the same causes in individuals affected with the same taint, and, to use such an expression, at its expense; for it is a matter of observation that glandular engorgements and softenings of the bones mutually

assist each other; though it is a fact that the glands are rarely affected secondarily in cases where rachitis is fully developed.

Rachitism is clearly known by the following symptoms: head large, particularly its upper part; swellings of the ends of the long bones, and particularly those of the carpus and tarsus; weakness, inaptitude in walking, impossibility of remaining long on foot; deviation of the long bones, and especially of the tibia, the sternum, ribs, the vertebral column; dyspnœa; quick and precocious understanding, &c.

10. *Nervous affections depending on the scrofulous taint.*—By means of its influence on the nerves, the scrofulous taint often occasions very obstinate nervous affections to take place. How often in the subjects of this taint have we seen cutaneous eruptions, swelled glands, &c. disappear suddenly, to give place to spasms, paralysis, hypochondriasis, and a hundred other such affections, which disappear in their turn on the restoration of the former symptoms!

We ought to refer to the same origin the chronic disorders of digestion, as constipation, diarrhœa, and the suppression or augmentation of various other secretions; all of them accidents to which scrofulous persons are extremely liable.

11. *Cretinism* is, in my opinion, the highest grade of the strumous constitution. In this case the infection is general; it is not a single part that is affected, but the whole body is scrofulous. The organization and the intellectual faculties are arrested in the midst of their development; so that cretins seem to be of a nature inferior to that of other men. Cretinism moreover, like the scrofulous diathesis, has its seat in the lymphatic system; it arises under the same influence, and, like

goitre, is endemic in the same localities. It might almost be said, that cretinism is a general goitre.

Besides, cretinism is not the only imperfection of organization produced by the scrofulous taint. There are others which exhibit themselves in the earliest periods of life, or even in the mother's womb, and which probably are owing to no other cause. Such, amongst others, is congenital deafness and mutism, which may be regarded as a partial cretinism, drawing its origin from the same principle, and transmitted from parent to child by methods the secret of which nature has not hitherto divulged. Further, it is observed, that the greatest number of deaf and dumb are found in scrofulous families. The same remark has been made of countries where the scrofulous diathesis is endemical.

Progress and prognosis of the scrofulous disease.

Of all the infirmities that afflict the human race this is certainly one of the most lingering and difficult of cure. It belongs to the class of constitutional diseases, that is, those diseases that are so identified with the constitution, that it must be entirely renovated before we can destroy the native disposition with which it is tainted.

In effecting this great revolution, nature is more powerful than art. It is by no means rare to see the strumous constitution first lose some portion of its intensity, and then become completely effaced by means of the critical impulses of age. It is in this way that those natural changes, which the ordinary progress of life effects in the human organization, occasion the scrofulous affection to appear and disappear by turns.

Regarded in its ordinary limits and primitive seat, the scrofulous taint is an affection proper to childhood, and one of the commonest at that age. It often appears

in the first year of life, and even sooner; an incontestable proof of its hereditary nature. It ordinarily affects the mesentery in children of two years old; and falls on the lungs at the period of puberty, &c. It also very often appears in the course of the third or fourth year; sometimes even in the seventh, examples of which have fallen under my own notice; but it is very rare for it to make a first appearance at the age of puberty,

The scrofulous disease commonly disappears before the seventh year. In some instances, however, it continues even till the period of puberty, and then vanishes. Sometimes, nevertheless, it is so deeply rooted in the constitution as to accompany the patient to the grave, always assuming some new form.

But the course of this affection is not always continuous; on the contrary, intermissions are very common. They sometimes last several years, so that the patient thinks himself cured; yet the disease suddenly reappears under the same aspect, or under some new form. It has even been seen to renew itself with all its peculiar characters in women at the *critical* period,—that is, after having been suspended during the best twenty years of existence, and during the vigorous state of the sexual organs. At this epoch neither scirrhus nor cancer, tubercular phthisis nor abdominal consumption are, as might be supposed, accidental affections, but the tardy effects of the scrofulous diathesis, which seems to wake out of a long sleep.

It is proper in this place to recal to mind our division of scrofula, into that which attacks the superficies and that which is determined to the interior of the body. In some cases, and principally in the commencement, it manifestly affects a tendency to the external parts; witness the glandular engorgements, cutaneous affections, ulcers, ophthalmias, &c. As long as these symp-

toms last, the internal functions are freely exercised. But if they should disappear either spontaneously or by the inconsiderate application of remedies while the scrofulous diathesis still subsists, the organs which are placed in the interior of the body become affected in their stead, and then we have tubercular phthisis, marasmus, hydrocephalus, ascites, nervous diseases, &c. On the other hand, all these affections vanish, simply in consequence of the reappearance of the exterior symptoms. One of the most essential principles of the treatment rests on this reciprocal succession of the external and internal symptoms of scrofula. This is also the foundation of an important truth, of which my practice has furnished me with a thousand proofs, viz. that those children who at an early period have had tinea, crusta lactea, or other analogous eruptions, are commonly exempted from the internal ravages of the scrofulous taint, and subsequently enjoy a good state of health.

The scrofulous disease is not in itself a mortal affection; but may, and too commonly does become so, either by attacking organs that are essential to life, or in effecting extensive disorganizations. Thus we meet with persons whom the scrofulous virus has spared for thirty or forty years, but whose existence it suddenly terminates under the name of phthisis, dropsy, &c. affections which differ from each other only in respect of the seats they occupy. I have seen several persons perish at the age of forty years from the sequelæ of this cruel disease.

Marasmus, pulmonary consumption, dropsy, cancer, caries and malignant ulcers: such are the consecutive affections of scrofula which generally terminate in death.

SECTION III.

TREATMENT OF SCROFULA.

From what I have hitherto said concerning the nature and causes of scrofula, it will readily be perceived that the treatment rests on the following indications:

1. To withdraw the patient from under the influence of the causes of the scrofulous diathesis; for a cure is impossible while these causes continue to act.

2. Although acidities and mucous saburra oppress the primæ viæ evidently as effects of the scrofulous taint, nevertheless, these matters react on the cause which produces them, and oppose the cure; whence a necessity for keeping the bowels free, and for neutralizing the acids as fast as they are formed.

Next to the elimination of the causes, the indication in question is certainly the most important, since the success of the treatment depends upon it. Previously to resorting to anti-scrofulous remedies, properly so called, it is necessary then to prepare the primæ viæ by absorbents, resolvents, anthelmintics, or evacuants, according to the nature of the case. It is even necessary to recur, from time to time, to these preparatory means. How often after their exhibition have I seen the lymphatic system, if I may so speak, return *of itself* to a natural condition!

I, for my own part, have not the least doubt, that if bark is often found inefficient in the treatment of the scrofulous diathesis, it is because a due preparation of

the first passages for its reception is neglected ; without which preparation, the medicine glides over the digestive surfaces without producing any effect.

3. To elevate the tone of the constitution, and especially that of the lymphatic system. This is the fundamental basis of the treatment. Whatever preparatory means may appear to be indicated, you are never to lose sight of this indication ; and remember, that the resources of hygieine yield neither in number nor importance to those of pharmacy. Good food, wholesome air, &c. are not less useful than bitters and astringents ; I do not except even the bark, martial preparations, baths, acorn coffee, &c.

4. To regulate and reanimate the functions of the lymphatic system by allaying the irritation of which it is the seat.

There are means proper for reanimating the absorbing power of the lymphatic system, and extinguishing the specific irritation which constitutes the scrofulous habit ; for dissipating the spasms of this system and re-establishing the equilibrium of its functions. Such are revulsives, by means of the property they possess of distributing equally over the whole body forces which have been unequally divided among the organs ; such also are tepid baths, antimonials, mercurials, cicuta, bitter-sweet, belladonna, opium, baryta, lime, and guaiacum.

Lastly, under this head we must arrange the class of tonics ; because, the irritation of the lymphatic system being dependent on a state of weakness, we often find in tonics the most certain of our curative means.

5. Wholesome aliments that are rich in nutritive principles, baths, a pure dry air, light, and sun-shine.

6. To correct the direct effects of the scrofulous taint ; such as engorgements of the glands, acrimony of the lymph, &c.

It would seem at a first glance that this indication is involved in the former ones. In fact, is not combating a disease to combat its symptoms? Yes, no doubt: but we remark, that certain symptoms, after long continuance, acquire at length an existence quite independent of the cause which originally produced them, so as to subsist even after its destruction. Swellings of the glands, for instance, acquire such a degree of fixedness, the acrimony of the lymph becomes so identified with our humours, that to extinguish the sources of the evil is not enough, we must resolve the engorgements themselves, and purify the lymph. This is not all: we must furthermore endeavour to excite those critical movements which nature employs to attain her purposes, and carefully attend to prevent metastases to those organs which are essential to life. It is with this view that I recommend the juices of herbs, and especially the juices of colt's foot, brooklime, dandelion, &c.; lime-water, absorbents, alkaline and saponaceous substances, baths, revulsives, issues, &c.

It is, no doubt, very important to know the indications which compose the treatment of any disease; but this knowledge alone is not sufficient. It is still necessary to know the order, the succession, which ought to be established between the curative means, the time of their administration, and the influence of particular causes. It will be well not to lose sight of the following general considerations.

After having withdrawn the patient from the influence of the morbid causes, and properly disposed of the *primæ viæ*, we must resort to the curative means. We should commence with those which appear to have a special action on the lymphatic system and on the lymph itself, or with anti-scrofulous remedies properly so called; such as mercurials, antimonial, resolvent

plants, &c.; and care should be taken to join with these, from time to time, articles which may excite the digestive tube, in order better to insure their effects.

Having effected the resolution of the glands, having cicatrized the cutaneous ulcers, and dissipated or at least sensibly diminished the scrofulous inflammations and all other symptoms of the same nature, we may pass on to the employment of the fixed tonics. Of these there is only one which we may venture to employ any sooner, and this one may be used even from the outset—I mean acorn coffee.

In all cases we ought carefully to inquire, whether the scrofulous disease is accompanied with irritation or asthenia: for although the latter ordinarily predominates, it sometimes happens, nevertheless, that the lymphatic system is highly irritated either in its whole, or partially. We must under such circumstances recur to the use of antiphlogistics until the irritation shall have been subdued. Frequently in these very cases, as for example in violent ophthalmias, it is necessary to make use of local bleedings. Here tonics would do the greatest mischief: but such cases are not the most common; in general, there exists from the very commencement a state of weakness so decided, an absence of irritation so complete, that corroborants may be boldly exhibited even at the outset, especially in rachitism, where martial preparations are not less efficacious than mercurials are in the other forms of the scrofulous disease.

But, when the scrofulous taint is of ancient date and has struck its roots deeply into the constitution, it is from time only that a radical cure can be hoped for. A majority of the cures that we hear proclaimed under such circumstances are only cures of symptoms. If resolution of the engorged glands take place and the cutaneous eruptions disappear, the patient is said to be

cured. But be not deceived, the principle of the malady still exists, and sooner or later new symptoms, leaving no doubt as to their nature, will be manifested. To prevent relapses recourse must occasionally be had to the *special means*, and particularly to the mercurial and antimonial preparations, remembering, that their use is to be persisted in until the complete or almost complete extinction of the symptoms. In the intervals, an occasional use must be made of tonics combined with resolvents. Finally, if every thing goes on favourably, we may suspend for one month the use of all medicines except the dietetic means, such as baths and acorn coffee, which are always indicated. By following up this method we may hope completely to destroy the scrofulous diathesis in the space of one year.

We have seen above, that the exterior symptoms of scrofula alternate, so to speak, with the internal, and vice versa; so that the one may be regarded as a crisis of the other. Hence the important precept, to favour, as much as possible, the tendency of the scrofulous blemish to the exterior of the body;—for this is the means to arrest its progress, to preserve the internal organs from its attack, to render the general treatment more successful. Among the means which answer this indication, the chief are baths, stimulants to the skin, and issues. I could cite a multitude of instances in support of this truth, but one will be sufficient.

A child, of a weakly constitution, scrofulous from an early age, was still in its second year, when the parents had its ears bored: inflammation of the wound took place, suppuration came on, and the entire surface of the body was covered with a scabby eruption. For a whole year this eruption resisted the remedies employed to combat it; it finally disappeared, and the child which is now ten years old has never since then experienced

the slightest attack of an obstinate disease which commenced while in the mother's womb. This case proves, in a striking manner, the power of local irritations to awaken the scrofulous vice, and the influence of artificial ulcers on its termination; it furthermore shows, that cutaneous eruptions when extensive may be *critical* and completely put an end to the scrofulous malady.

We break up the habits of nature when we suddenly disperse, by means of topical applications, long standing local affections: and it is not rare for her to concentrate herself in the interior of the body, and produce engorgements, suppurations, in a word, new productions, as if to indemnify herself for those which we have removed from her grasp. This is a thing I have often seen after the sudden retrocession of a cutaneous eruption, an ophthalmia, and even after surgical operations. Thus, the amputation of the mammary gland is followed by scirrhus of the lungs; that of the testicle by a production of the same nature in the lower belly, &c. I trust these facts will convince surgeons of the necessity there is of first destroying the scrofulous diathesis before they remove its local symptoms by the bistoury, and of establishing issues after the operation, as if to indemnify nature.

Before I undertake the history of the curative means, I ought to inform my readers, that I do not intend to give them a complete catalogue of all the articles that have been extolled as useful in the treatment of scrofula; but that I shall attend only to those whose efficacy has been tested by experience.

I divide the treatment into dietetic and medicinal. This division is of the greatest importance; for hygieine not only offers us means adapted to second the effects of our medicinal agents, but it often has more to do with the cure than all the drugs of the apothecary.

CHAPTER I.

Dietetic treatment.

It is the business of dietetics to destroy the morbid causes, the first and most important of the curative indications; I say the most important, for nature, if seconded by a good regimen, is often herself able to cope with the scrofulous malady; or at least hygiene left to herself would oftener succeed than pharmacology abandoned to its own resources.

Dietetics is omnipotent in the prevention of this disease, so that, as far as it is concerned, it may be considered as the prophylactic and curative method. I say moreover, that dietetics and physical education are the only means capable of eradicating the scrofulous taint, as well as all other constitutional affections.

1. *Aliments.*

The food ought to be light, easy of digestion, and incapable of producing acidities, or weakening the stomach—vegetables ought to be combined with animal substances. Fresh vegetables, particularly roots cooked by boiling—broths made of herbs, lean meats easy to digest: such are the most suitable aliments. For drink, the yolks of eggs beat up with water and a little sugar, good beer of a light kind, Seltzer and Fachingen water may be used.

2. *Atmospheric air.*

As long as scrofulous patients inhabit low and damp

places, their state only grows worse and worse. This in a great measure arises from the humidity of the air, and the carbonic gas with which it is surcharged, especially its lower strata. Unless then the season of the year should prevent it, the patients ought to breathe the open air in a very dry situation with a southern exposure, and covered with a rich vegetation. Children will be benefited by playing out in the open air on the dry grass; this is an essential point in the prophylaxis of scrofula. It is also of equal importance for them to live in an upper story, in order to avoid the animalized atmosphere of cities; or which is better still, they should be sent to breathe country air in a high and dry situation. I can not too much commend a special attention to the apartments and especially the sleeping room of children, because they pass the greatest part of their lives in them; in general both parents and physicians take too little pains in seeking out the causes of the scrofulous diathesis.

Let one figure to himself a chamber in one of the most distant and darkest corners of the house, looking generally into a court; in this chamber five or six beds touching each other, with as many individuals constantly disengaging unwholesome miasmata from their lungs and other sources; the windows always close shut, for the common people generally love warmth; their clothes hung round a stove to dry; a *pot-pourri* on the fire; the dirty linen in one corner and the clouts in another; dirty beds; chamber pots, &c.: let any one fancy to himself all this, and he will have an idea of the way that almost all our artisans pass their lives, in the hope of something better to come. Can any one conceive all the danger of such an unwholesome air to a child condemned to respire it from the earliest years of its life, or the influence it must exert on the lymphatic sys-

tem! After this, is it astonishing that scrofula is so common in this country, and daily becomes more and more so?

Such are the causes which have often seemed to me productive of the malady. I entreat parents, physicians, and instructors to take them into consideration, and to recommend expressly that the windows should be left open to favour the circulation of the atmospheric air and remove all sorts of miasms, particularly those arising from the human body: this is the way to prevent the disease in question, and to cure it when it already exists.

3. *Bodily exercise.*

Exercise is another condition without which it is impossible to cure the scrofulous diathesis. A child who, from the time he learns to walk, spends the greatest part of his time at play in the open air, is rarely affected with the malady if he is so unfortunate as to inherit it from his parents, and is more easily cured than another in different circumstances. But I allude here to spontaneous exercises, as walking, running, gymnastics, &c., for such only deserve the name of exercises, for they alone strengthen the fibre and reanimate the absorbent operations; they furnish the best means of distributing tone uniformly over the various parts of the body.

The situation, the theatre of these exercises, is not a matter of indifference. Children should play in the open air, on a green sward, so that they may not hurt themselves, and under shady trees, so as to be protected from the sun. I have seen scrofulous subjects on whom all the resources of art had been lavished in vain, I have seen them cure themselves, so to speak, as soon as they began to travel and change their regimen.

Passive exercise, such as riding in a carriage, is not,

properly, exercise ; at most it is only a means of communicating a shock (*secousse*), which may favour the resolution of engorged glands ; but it is incapable of augmenting the sum of the forces, and of making an equal distribution of them. It would therefore be a great mistake to confound passive with spontaneous exercise ; the former is to be employed for little children who have not yet learned to walk, and for such as are reduced to an extreme degree of weakness.

4. *Frictions.*

In whatever view they may be considered, frictions are among the most precious of the means we employ in treating scrofula ; their *modus operandi* approaches very nearly to that of exercise ; they strengthen the body, excite gentle contractions of the capillary vessels, and in the secretory organs, and facilitate the resolution of glandular swellings by favouring the circulation of the lymph. The bodies of scrofulous patients should, therefore, be rubbed, two or three times a day, with flannel, a sponge, or a brush ; in some cases it may be necessary to expose the flannel to the vapour of aromatic substances, to increase the effects of friction ; this is peculiarly suitable to very weakly children, as supplying as far as possible the want of spontaneous exercise.

5. *Attention to cleanliness.*

I look upon cleanliness as one of the most necessary conditions, whether for the prevention or cure of scrofula.

Among the means of cleanliness, one of the most important is to remove every thing that might furnish materials for unwholesome absorption ; whence the necessity,

1. Of daily ablutions of the whole body with fresh water.

2. Of ordering one or two tepid baths every week: but we shall recur to this measure.

3. Of frequently changing the body linen.

I know of nothing that is more injurious to the health of children than the habit of changing the shirt only once a week. There is no better way to favour the *resorption* of the matters of transpiration, and to keep the skin in a permanent state of atony and relaxation.

I recommend therefore that the body linen should be changed at least every other day. When the disease is progressing towards a cure, one method of hastening that result is to perfume the linen with aromatic substances. As to the materials of which the clothes are to be made, the best are those which are easiest to wash, and least easily dirtied. I hope all my readers will be convinced of this truth; it is the way to keep the lymph in a good condition; for it must not be believed that those substances alone which are introduced into the stomach are capable of altering the qualities of this fluid; assuredly, the functions of the skin and foulness of the clothing have no less influence on these alterations than the food itself. I might cite several examples of incipient scrofula that I have promptly cured by the simple precautions of changing the linen daily, and exposing it to aromatic vapour.

4. Keeping clean beds, and changing them frequently.

This is a thing that physicians hardly ever think of. Attention to cleanness is thought to be complete, and yet a child is allowed to pass a portion of its time in a bed charged with all sorts of miasms for half a century; and yet every body is aware of the fact that absorption is never more active than during sleep. Cleanliness must be carried even to excess in relation

to whatever comes in contact with the body. An old feather bed should be looked on as a depot in which all the products of animal exhalation are collected together; it is the source of asthenic affections, and a multitude of other diseases of children.

Scrofulous children ought to sleep on matrasses.

a. The chief inconvenience of feather beds is that they can not be changed often enough; while matrasses, being made of wool, of cotton, of moss, of chaff, or hair, may be renewed every month, and of course easily kept clean.

b. As feathers readily take up the miasms which during the night are disengaged from organised bodies; there is formed a kind of bath of animal vapours, which nature had destined to leave the body, but which re-enter it by means of absorption. To these vapours should be attributed the miliary fevers, the petechiæ, and malignant small pox, to which children that sleep on feather beds are so subject. A matrass, as it readily admits of the escape of these vapours, has none of the inconveniences of those materials which retain them.

c. By the heat and perspiration which it excites, a feather bed weakens and relaxes the whole constitution, so that it keeps up the very principle of the scrofulous malady.

d. By the relaxation which it produces, it favours beyond measure the growth, onanism, &c.; all of them affections which frequently attend the first stage of the scrofulous taint, and which we must endeavour to prevent by all the means in our power.

5. We have spoken above concerning pure air, and shall not return to it again.

6. *Warm baths.*

Warm baths, which are of so much consequence in

the physical education of children, are also among the most useful means we can employ for the prevention and cure of the disease which forms the subject of this work.

1. In addition to the fact that there is no better means of keeping the skin clean, baths have the further advantage of facilitating both absorption and exhalation.

2. Another property which can not be denied them is that of causing an equal distribution of the forces, by means of the gentle excitement they produce over the whole surface of the body, by enlivening the sensibility, reestablishing the equilibrium of the fluids, soothing the excessive irritation, facilitating the absorbing operations, and regulating the functions of the lymphatic system.

3. As being anti-spasmodic, baths facilitate the resolution of engorgements, which are ordinary symptoms of the first stage of scrofula. It is well known that in cases of spasmodic stricture of the intestines, where there are calculi in the ureters, in the biliary ducts, &c. no remedies are more prompt and efficacious than baths; the same is true in the present case. In support of this truth I could cite a number of facts; for experience has taught me that those children with whom the practice of bathing has been commenced at an early period are ordinarily exempt from scrofulous swellings.

4. Even when scrofula is in full vigour, baths are very useful in preventing metastases, and for diminishing the lymphatic acrimony.

5. Finally, they constitute a precious vehicle by which remedies may be introduced into the lymphatic system, a thing not to be despised in the pharmaceutical treatment, which will form the subject of the following chapter.

CHAPTER II.

Pharmaceutical treatment.

We shall begin by laying down rules, the knowledge of which seems to be essential to a successful treatment of scrofula.

First rule. No disease demands more patience on the physician's part than this, being by nature essentially chronic; time is one of the necessary conditions for its successful treatment. There are physicians who soon give up their hopes, and reject an article as useless if it does not succeed in two or three days; changing every moment both their method and their remedies: such physicians ought not to undertake the cure of scrofula, for assuredly they will not succeed if they do.

Second rule. Time and the natural development of the organs are two precious elements which ought to be taken into the account in the treatment of scrofulous affections. It has already been shown, how, by means of this development, and by the natural revolutions of the lymphatic system, this affection may either cure itself or become easily curable. Time sometimes effects cures which might have been in vain expected from pharmaceutical agents. The art of temporising and profiting by the revolutions natural to different ages constitutes a part of the physician's knowledge; he sometimes must take upon himself to order medicines that are nearly insignificant: but as soon as the moment for action arrives, let him eagerly recur to the use of the most powerful means. How often have phy-

sicians been honoured for cures, in regard to which their only merit consisted in not having thrown any obstacles in the way of nature!

Third rule. Spring is, without contradiction, the most favourable season for combating the scrofulous diathesis.

1. The entire body, and especially the lymphatic system, experiences at this season a turgescence, an increase of vitality, which in most persons manifests itself by swellings of the glands, cutaneous eruptions, &c.; it is the change, which at this season takes place in the economy, that favours the action of curative means, and the termination of the scrofulous vice.

2. Vegetables are never so fresh and active as in the spring: and scrofulous persons derive so much benefit from the juices of certain plants that they ought to make use of them every year.

Fourth rule. Never mistake the suppression of glandular tumours and of other local affections for the cure of the scrofulous diathesis. These affections are symptomatic, and if they do often disappear while the cause which produces them still subsists, it is not uncommon for them to reappear after a longer or shorter period: it would be of less consequence if the suppression of these affections were unattended with danger; but it is often followed by metastases which lay hold on the most important organs. Never treat the external symptoms, therefore, by topical applications merely. If they should disappear spontaneously, neglect no means which may possibly recal the lesion to its original seat.

Fifth rule. Do not believe in the existence of a specific remedy for the scrofulous taint; a disease which acknowledges many causes, and which is so identified with the constitution that it must be entirely renovated before

it can be rescued from it: such an affection cannot be cured by a single remedy. If any one has flattered himself with the contrary opinion, it is because he mistook the external symptoms for the bodily disposition which originated them, he took the suppression of symptoms to be the cure of the malady.

However, it is very true that there are certain means which seem to be endowed with a special virtue against certain symptoms, such for instance as glandular tumours, and which in this sense might be honoured with the title of specifics.

Sixth rule. In order to obtain great success in the treatment of scrofula, attention must be paid to its complications, and to the temperaments of the subjects; the mere removal of the complication suffices in some cases to occasion the disappearance of the principal malady. In other cases some particular circumstance in the temperament of the patient alone retards the cure. The rule in question is of the highest importance in directing the choice and administration of the curative means: a substance may be injurious in one complication and in a particular temperament, which produces the happiest effects under other circumstances.

Seventh rule. The curative means must be occasionally varied in order to obviate the inconveniences arising from habit. The human body, in time, will accustom itself to the impression of the same stimulus; so that if we are not careful to augment the dose by degrees, and even to change the medicines, they soon come to produce no effect whatever. All medicinal substances act with renewed vigour, whenever they are exhibited under new forms; a standing rule which can not be too often repeated.

Eighth rule. Do not forget that the lymphatic system is the primitive seat of the scrofulous diathesis,

and carefully seek for all the methods that are capable of reanimating the absorbent functions.

Such are the topicals properly so called, and the medicines which are commonly exhibited internally, but in these cases applied to the surface of the body. It is very useful to introduce medicines at once into the lymphatic system, without compelling them to follow the tortuous route of the assimilative passages. In this way a multitude of objections may be avoided, which are often brought against the internal exhibition of remedies. Under this head I place medicated baths, pediluvia, cataplasms, ointments, &c.; and even injections, though they may be considered, rigorously, as internal means.

After having laid down the rules which should direct us in the administration of the pharmaceutic means, I shall now proceed to speak of these means, beginning with emetics.

1. *Emetics.*

Among the means employed in curing the scrofulous diathesis, emetics deserve a distinguished place. To the advantage of cleansing the first passages, a matter of importance in this disease, they add that of exciting absorption and strongly agitating the lymphatic system. These means have sometimes sufficed to occasion the disappearance of obstructions, although situated at a distance from the stomach itself. I commonly, therefore, commence the treatment of scrofulous swellings by prescribing an emetic, and recur from time to time to its employment, even though no very evident symptoms of gastric disorder may exist; because my object is less to excite vomiting than to communicate an impulse to the lymphatic system and favour the action of other curative means.

Although emetics are never formally contra-indicated

in scrofula, I nevertheless rarely employ them where there is manifest atony of the digestive organs. I prefer, in scrofulous and pituitous habits, a mixture of one or two grains of tartar emetic with twelve grains or a scruple of ipecacuanha, in half an ounce of oxymel of squills and an ounce and a half of water. The patient may take a spoonful of this potion every quarter of an hour until vomiting ensues.

2. *Purgatives and digestives.*

These medicines, like the preceding, act in two ways; they evacuate the matters contained in the bowels and excite the lymphatic system; but in order to obtain this last mentioned effect, they must be chosen from the class of drastic cathartics. Thus, instead of the neutral salts, which are never proper for scrofulous persons, we ought to prefer muriate of ammonia, acetate of potassa, Boerhaave's digestive liquor, the digestive salt of Sylvius, spirit of Mindererus, rhubarb, jalap, aloes, &c.

I especially recommend jalap*, which was so much commended by Frederick Hoffman in the diseases of children. I am not afraid of giving it, with proper precautions, to children scarcely two months old, in doses of four or six grains mixed with a little magnesia; and, far from having occasion to repent of this practice, I affirm that there is no better way to relieve the bowels of their mucous accumulations, and restore their lost tone. I have tried for a long time the salts, the resolvents, and incisives; but cough, indigestion and pasty stools have continued, until I resorted to jalap, of which

* *Note by the author.*—I prefer the root to the resin, because the resinous parts are so combined with the gummous principles that the drastic effects of the resin are not to be dreaded.

one or two doses have sufficed to remove these symptoms. I have often administered the same remedy in dropsy with the most complete success, so that, now, as soon as I perceive in a scrofulous patient the above mentioned circumstances, I hasten to exhibit the jalap in small doses, combined with cream of tartar, sulphate of magnesia, and golden sulphur of antimony; I continue its employment for several weeks, adding some tonic drink, and success frequently crowns the practice.

Resinous substances given in small doses, in combination with bitter extracts and resolvent salts, are extremely suitable in cases of atony where the belly is slow; the impression they produce countervails the debility which it would seem ought to follow the evacuations they occasion. The materia medica does not possess any more powerful resolvents. Neutral salts and bitter extracts, if mixed with them, add to this energy.

The employment of purgatives in these cases is more important than is generally supposed. For my own part, I have no doubt that the art has lost much of its power over the chronic affections of the abdomen by a too general condemnation of the use of resinous substances; and it is by no means uncommon to see the most absolute empirics succeed in cases where dogmatic physicians fail every day. I am certainly no partisan of the powder of Aaihlaut (a preparation of scammony); but may I not be permitted to say, that I have seen it effect wonders in some old disorders of the belly? Besides relieving the bowels of their mucous load, it has raised the tone of the lymphatic functions, and the disease has speedily presented a more satisfactory appearance. But we ought not to hesitate in choosing the means to be employed. Minoratives and mild resolvents would prove ineffectual against indolent and pituitous

engorgements, such as we commonly meet with in scrofulous children. To derive all the benefit we have a right to expect from these means, they must communicate such an impulse to the lymphatic system as may rouse it from the stupor with which it has been struck.

Aloes is another medicine that I frequently use, but always with precaution: besides its efficacy in resolving lymphatic tumours and expelling intestinal worms, it strengthens the viscera of the lower belly, as any one may easily be convinced not only by its bitter taste, but also by the restoration of appetite, and the relief it procures in atonic affections of the stomach. Further, there is no substitute for this medicine in the affections above named. With this single article I have sometimes very promptly cured anorexia, chronic vomitings, flatulent affections, &c. against which quassia and bark had been uselessly employed: it being understood that they all depended on a state of weakness*. Finally, aloes has a special action on the liver, and of course on the bile; this is what renders it so precious a remedy for obstinate cutaneous eruptions, and atonic affections dependent on suppression of the biliary secretion.

1. Aloes is particularly adapted to the second stage of scrofula, when it is accompanied with general debility or a state of languor and *empatement* of the abdominal organs: it is doubly indicated where there are worms; but must be carefully proscribed in all cases of inflammatory irritation, or nervous erethism.

2. It is given in small doses associated with aperient substances, such as bitter extracts and aperient salts.

* *Note by the author.*—In chronic vomiting, which depends on atony or spasm of the stomach, I expressly recommend the following potion, whose good effects have been proved by experience: take essence of orange peel half an ounce; essence of aloes and of castor two drachms. The dose is fifty drops three or four times a day.

When taken in small quantities aloes, as well as rhubarb, is a gentle tonic.

3. However, the dose should be occasionally augmented, accompanying it with other purgatives.

A little girl aged eight years, evidently of scrofulous constitution, had had her abdomen swelled for a long time; the digestion was difficult, the skin of a bad colour, she had swelled glands and frequent cough. These symptoms suddenly became exasperated, a slow fever came on, the cough became more troublesome, the strength diminished, and to crown the evil she was attacked with vomiting, which returned several times every day, and threatened to exhaust the pittance of energy that was still possessed by the poor little patient. Suspecting that there might be worms in the alimentary canal, I added anthelmintics to the antiscrofulous remedies; and indeed a few worms were expelled; but this produced no change in the disease. As both the vomiting and other symptoms of scrofula continued, I ordered for her the following mixture: visceral elixir of Klein half an ounce; aperient elixir of Claudius*, Darel's aperient tincture of rhubarb, of each three drachms; Huxham's antimonial wine two drachms; extract of cicuta, extract of dulc-amara, of each one drachm; essence of orange peel, one drachm and a half. To be taken in doses of sixty drops four times a day, in an infusion of dandelion, yarrow, saponaria and bitter sweet. In six days, under this treatment, the vomiting

* *Note by the author.*—I can not sufficiently praise the effects of this elixir, as employed by me at the *Institut poly-clinique* of Berlin, in the treatment of scrofulous patients. The following is the formula for its preparation, as contained in the pharmacopœia of the poor. Take carb-potass one ounce; dissolve it in eighteen ounces of water; add aloes, myrrh, resin of guaiacum, rhubarb root, of each half an ounce; saffron two drachms.—Make an elixir.

had ceased, the appetite had returned, and the *whole body was less* clammy, &c. Nevertheless, I thought it ought to be continued. In two weeks more the cough, which exactly resembled that of phthisis, was gone, the oppression had disappeared, the slow fever had vanished, her strength and gaiety were restored; in one word, the patient might be considered as cured; the convalescence progressed under the influence of tonics, and all the appearances of scrofulous diathesis were dissipated. It ought to be observed that the mixture above mentioned does not act as a purgative.

I have made use of the same method in other scrofulous subjects in a similar situation, and obtained with it the same success.

As both purgative and tonic, rhubarb furnishes us with another excellent means of combating the mesenteric atrophy, and even the fever which bears the same name, in persons affected with the scrofulous taint. I place the greatest confidence in Darel's vinous tincture. A child eighteen months old, in which the process of dentition had occasioned convulsions and a febrile attack, presented all the appearances of the strumous diathesis: mesenteric obstructions, excessive emaciation, &c. I ordered for it three spoonfuls each day of Darel's tincture of rhubarb, and a little bag with aromatic plants bound on the belly; it continued with this plan for three weeks, when it was entirely cured.

When the swelling is more difficult to remove, I prescribe, with great advantage, the hedge hyssop, provided always there be no irritation. A young female, aged eighteen years, scrofulous from her childhood, and who still had swelled glands, had been plagued for a long time with a very bad cold, a violent and often repeated headach, vertigo, and a remarkable drowsiness, evidently depending on obstruction of the abdominal

viscera. The most boasted medicines could not prevent the headach from becoming continued, nor from changing into a real lethargy. I prescribed a scruple of hedge hyssop in powder every morning, a saline resolutive powder at noon and at night, and from time to time, a pinch of powdered asarum, sugar and soap, mixed like snuff. In a short time the head became free, the cold ceased, and all the scrofulous symptoms disappeared. It is more important than is commonly thought, in obstinate scrofulous swellings, to give, once in a while, a drastic purgative. For this purpose I often employ the following pills—Take resin of jalap, panchymagogue extract of Crollius, sweet mercury, of each one scruple. For ninety pills; the number for a dose must be suited to the patient's age.

3. *Antimony.*

Antimony produces extraordinary effects on the human body. It irritates in a peculiar manner the stomach and bowels, as well as the lymphatic and glandular systems; and it is more owing to the specific nature of its action than to its intenseness, that it is able to facilitate the resolution of engorgements, and re-establish and correct the secretions by restoring the secretory organs to a natural state.

To produce these effects it is not necessary that the antimony should excite the sensible appearances of reaction; experience has proved that the effects are the same when it is given in very small doses, and to individuals whose stomachs are very little irritable.

1. Antimony fulfils all the indications of scrofula except that of restoring to the constitution the tone it has lost. It destroys the irritation of the lymphatic system, resolves engorgements, corrects faults of the secretions, favours the resorption of effused fluids, &c.; in a word,

it is one of the most powerful resources of therapeutics against the scrofulous diathesis.

2. But it is never more efficacious and precious than when the skin does not perform its functions properly, or when there exists a morbid secretion, as, for example, in cutaneous eruptions and ulcers.

3. Be always well assured before you make use of it that there is no contra-indication, and give heed to the complications and to the period of the disease.

4. The only inconvenience which can be charged upon this metal is, that in the long run it weakens the general tone of the constitution, and particularly that of the skin and bowels; whence it might prove injurious to weakly persons; and in cases of colliquative sweats; but it is easy to prevent this inconvenience by choosing a preparation that does not determine so much to the skin, by combining it with bitters, and by causing the patient to take some tonic baths.

5. The forms and preparations which antimony may be made to undergo present some peculiarities with which the practitioner ought to be acquainted; but these peculiarities are so variable in various individuals, that it is very difficult to establish any general rules on the subject. I shall content myself with making one single observation, which is the fruit of my own experience.

Antimonial wine, and the antimonial salts, are certainly among the efficacious and energetic preparations of this metal; but there is none other of which the long continued use is followed by greater relaxation; therefore it is a very wise practice to combine them with tonics. I could here cite several instances in which a simple solution of tartarised antimony in a tonic preparation has sufficed for the cure of scrofula and even incipient rachitis.

The combinations of antimony and sulphur, as the golden sulphur of antimony and kermes mineral, are still more irritating than the preparations above spoken of. They exert a greater influence on the circulation, and are consequently not suitable for persons disposed to inflammation ; but they are so much the more indicated in cold, weak subjects, and in catarrhal affections. In this rank we ought to place the acrid tincture of antimony, and the liquid golden sulphur of antimony. Both of these preparations are very energetic, and especially the latter, in obstinate obstructions, cutaneous eruptions, atonic mucous fluxes, vitiated secretions, and generally, wherever it becomes necessary to produce a powerful irritation in order to excite artificial fever.

Antimony in substance, or sulphuret of antimony, also possesses advantages. Experience has proved that it is more efficacious than the most energetic preparations of this substance. Whence it has been concluded that its medicinal effects do not depend solely on its nauseating properties ; for crude antimony does not possess this property. But it is very difficult to distinguish in a general way the cases which demand the employment of crude antimony from those in which the combinations of this metal are more indicated ; nevertheless, it would seem that antimony in substance is preferable,

1. Wherever the susceptibility of the stomach is such, that the ordinary preparations excite disgust, vomiting or diarrhea.

2. In all cases where the stomach and digestive powers are languid ; for the sulphuret of antimony is not so debilitating as the antimonial salts.

3. Where its use has to be continued for a long time.

4. When there exists an imminent disposition to colliquative sweats—a disposition which would perhaps be

aggravated by the most simple preparations of this substance.

5. In obstinate herpetic eruptions dependent on the scrofulous vice. Antimony in substance is so efficacious in this case, that in this way I have cured the most obstinate eruptions, which had not only refused to yield to ordinary means, but also to the most energetic preparations of antimony. I shall here cite only one instance.

A little girl born of scrofulous parents had presented in her infancy the unequivocal symptoms of the scrofulous diathesis; she still had swelled glands on her neck, and eruptions on the arms and face. The eruption was dry, scaly, and sometimes resembled tinea. A great variety of means, both internal and external, had already been made use of without any success. I first prescribed a mixture of Plummer's powder, bitter sweet, and mezereon, but I was not more successful than the physicians who preceded me; however I was not disheartened. I ordered antimony in substance, in doses of one scruple, three times a day, with an absorbent powder, and a little sugar and canella. This dose I gradually augmented, until the patient took half an ounce of antimony every day; her drink was a decoction of bitter sweet, and for external application, some sulphurous baths. This treatment was soon followed by a favourable change, and the cure was completed in about six weeks; however, it is right to say, that she has had some slight relapses since, but they have promptly yielded to the same means.

4. *Mercury.*

Whatever changes time may produce in the theory of scrofula, mercury will never be struck out of its list of therapeutical agents; it is in fact one of the most effica-

cious and oldest of the remedies employed in the treatment of the disease. Besides it is doubtless more natural, that theory should conform to practice than practice to theory. In vain did Mr Girtanner, whose merit by the way we fully admit, attempt to call this truth in question by pointing out to us, that medicines which irritate the lymphatic system are unsuitable for the treatment of an affection in which that system is already too much irritated. If we reason in this way, we ought to reject mercurials from the treatment of the venereal disease, an affection in which the lymphatic system is more irritated than even in scrofula; moreover, do we not know that one irritation may destroy another? Be this as it may, observation has proved the efficacy of mercury in the treatment of the scrofulous diathesis. If I may depend on my own experience I may affirm, that there is no means comparable to the one in question for promptness in removing scrofulous symptoms, especially swellings, eruptions, ulcers, ophthalmias, &c. I have seen them yield in a few days to the internal use of this metal.

As for its *modus operandi* it is probable,

1. That it excites a specific irritation in the lymphatic system, which neutralizes the scrofulous irritation, by means of a general law of the economy by which different modes of irritation affecting it mutually destroy each other.

2. That it augments the resorption and secretion of the glands is proved by the resolution of scrofulous tumours, and by salivation.

3. It corrects the acrimony of the lymph by a semi-chemical action, to which doubtless is owing the property, which mercury seems to possess, of neutralizing most of the various sorts of virus that are developed in

the human body; such as those of syphilis, small-pox, and hydrophobia.

Mercury with antimony is one of the most commonly employed remedies for scrofula, although in strictness it will not suffice to destroy the disposition to this malady. Having very often used it in my own practice, I felt obliged to try to ascertain its indications in a precise manner. I am hence induced, on the present occasion, to set forth the results of my own experience on this point.

1. Mercury may be given with advantage in all the forms of the scrofulous disease, but principally in cutaneous eruptions, engorgements, lymphatic infiltrations, chronic phlegmasias, and more particularly still in the ophthalmias and nervous affections dependent on the scrofulous taint.

2. But too much circumspection can not be used in those individuals who by the very structure of their bodies appear to be disposed to phthisis, in those who are threatened with scurvy, as well as in all cases of weakness of the alimentary canal, and in all individuals subject to abundant hemorrhages.

3. Mercury is always contra-indicated in the last stage of scrofula, when the constitution is menaced with degeneration and an approaching colliquation, especially if a slow fever have already made its appearance.

4. When you think mercury ought to be given, do not carry the dose so far as to excite salivation; on the contrary, you ought to be very careful to prevent it, for every thing that debilitates is injurious in this complaint; however, this rule suffers some exceptions. There are cases, as for example where obstinate swellings exist, or very old nervous affections produced by the scrofulous taint, wherein the best practitioners agree as to the utility of pushing the mercury even to saliva-

tion, not with the view of procuring its evacuation, but in order to be assured that the lymph has been well impregnated with mercurial particles, and that a sufficient revolution has been effected in the organism. I shall soon cite an example in confirmation of this truth.

5. It will not be denied that mercury introduces into the system, when its use is long continued, a radical debility, which affects the fluids no less than the solids; and hence the propriety of associating it with tonics, such as bark, sassafras, calamus, willow bark, &c., and also of prescribing a nourishing diet. It not unfrequently happens that the scrofulous diathesis, like syphilis, remains apparently stationary, or that it even becomes aggravated under the influence of mercury, a circumstance that depends on the bad state of the vital forces. In fact it is only necessary to suspend the use of the mercury, to substitute for it some roborant articles and a diet of easy digestion, and the disease, which before was stationary, will shortly be found to vanish; thus the general tone of the constitution previously weakened by mercury will be reestablished, and the animal fibre elevated to the degree of energy requisite to enable the system to triumph over the enemy which had besieged it.

6. It is not uncommonly that we are obliged to combine the mercury with narcotics; this combination is indispensable in persons who are by nature endowed with a keen sensibility, and in those local affections which develope themselves in very sensible organs; otherwise there would be reason to fear the too violent action of the mercury, which might become a source of new evils to the patient. Among the means of repressing the too irritating operation of mercury, we must

especially distinguish opium, cicuta, hyosciamus, cherry laurel water, belladonna, assafoetida, &c.

7. In the scrofulous diathesis, as in syphilis, it is possible for mercury to dissipate the symptoms without destroying the cause which produced them ; and hence this important rule, never to consider the disappearance of the symptoms as a radical cure of the scrofulous taint, and to continue the treatment even after all signs of the disease are gone.

8. The external is often to be preferred to the internal use of mercury, especially in such local affections as are found to be very obstinate, and when great care is required in relation to the alimentary canal and the rest of the constitution.

9. In rebellious chronic affections we should occasionally vary the forms and preparations of mercury, so as always to produce a new impression : it often happens that one preparation is continued for a long time without the least advantage ; but if this be changed for another the disease speedily assumes a different aspect.

10. Inasmuch as we are under the necessity of varying the mercurial preparations which we employ, it is clear that we ought to make ourselves well acquainted with their properties. In fact, the success of the treatment depends on the choice we make among these preparations ; they must be suited to the temperament of the individual ; but much of this must be left to the tact of the physician. I may, however, be permitted here to state the results of my experience on this subject.

The preparation of mercury called Plenck's pills is peculiarly well adapted to cases in which the scrofulous disease has seized on organs endowed with a great degree of irritability. Dr Ficat relates four cases of very obstinate scrofulous swellings, in which this pre-

paration, combined sometimes with bark and sometimes with opium, was followed with the happiest success. I could easily multiply facts of this kind.

The combination of sulphur and antimony with mercury deprives the latter of such of its properties as are too irritating, favours its determination to the surface, while salivation is less to be dreaded from it; further, I find no difference between the ethiops mineral (black sulphuret of mercury) and ethiops antimonial (antimoniated sulphuret of mercury) although we read in many authors that the first named of these articles readily excites ptyalism. For my own part I can assure the reader, that I have very often given it in a continued manner to the most delicate children, and that I have never found in its use those inconveniences with which it has been reproached; it is one of my familiar remedies, and I frequently order it for children, because, in addition to its antiscrofulous virtues, it possesses the qualities of a vermifuge. The ordinary dose for a child three or four years old is two grains twice a day, with a little cicuta, magnesia and sugar: to children above this age a scruple may be given. Associated with digitalis or a vermifuge powder, the ethiops mineral is a very good anthelmintic. Plummer's powder has analogous effects, but is more irritating.

Calomel is one of the most commonly employed of the mercurial preparations; Hoffmann recommends it especially in the small-pox.

Hahnemann's soluble mercury is particularly indicated in deeply rooted scrofulous affections. It affords an excellent means of resolving glandular swellings and favouring the desiccation of cutaneous eruptions.

But when the disease is very obstinate, and has its seat in organs remote from the centre of the circulation, we must recur to those salts which are the most ener-

getic of all the mercurial preparations. It would doubtless be superfluous to relate facts to confirm the antiscrofulous virtues of mercury, which are so well known to the world. I can not however refrain from stating two cases which seem to me to be possessed of some interest.

A little girl, five years old, was affected with a complete mesenteric atrophy and scrofulous ophthalmia. She took every evening a powder composed of one grain of calomel and twelve grains of flowers of sulphur and sugar; her drink was a decoction of guaiacum and bark, and she had occasionally a purgative. In three weeks there was not a trace of either ophthalmia or marasmus.

A girl seven years old, having presented in her infancy all the symptoms of the scrofulous diathesis, was seized with a febrile disease accompanied with violent cephalalgia and vomiting, which lasted for two days. The patient passed some worms. To this condition were superadded epileptic attacks which were followed by loss of speech; eight days after this she was seized with inflammation of the throat and tongue; the inflammation disappeared in a few days, but left the sublingual glands swollen, and an abundant discharge of saliva. From this time there was no more fever; the appetite and sleep returned; but the epileptic paroxysms recurred from time to time. As all these accidents might be supposed to depend on the presence of intestinal worms, I prescribed for her the most powerful antispasmodic anthelmintics, valerian, mercury, flowers of zinc, injections of milk, &c.; I at the same time ordered frictions about the neck, and along the vertebral column with a camphorated liniment. The expulsion of some worms produced no change in the disease, and at the end of three weeks she still continued to be affected with epileptic attacks and loss of

speech. She now made use of decoction of bark, of valerian, and misletoe, and tepid baths; she took every day an injection made with beef's gall, and employed frictions on the abdomen with an ointment composed of the same substance. The epilepsy lost somewhat of its intensity, and ended by changing itself into chorea St Viti; the muteness nevertheless, continued, and the fingers began to swell. To the decoction above named, were now added two grains of extract of hyosciamus, every third hour; the rest of the prescription remained unaltered. The appetite now returned, the stools became more regular and of a healthier appearance; she slept. Nevertheless the chorea remained; there was an almost continued insensibility; and she was still unable to speak. It continued to become more and more probable that the origin of the nerves might be the seat of a scrofulous principle, or that there was an accumulation of serosity in the ventricles of the brain, giving rise to this singular disease, which had already continued for eight weeks. It was under this last impression that I prescribed the pills of corrosive sublimate of Hoffmann, and which I caused to be made every second day in order to prevent them from becoming hard. The patient took three per diem; one in the morning, one at noon, and one in the evening; with two grains of the extract of hyosciamus each time. After two weeks' continuance of this plan, she was affected with frequent sneezing, and an abundant secretion of mucus from the nose, and of saliva. The patient often carried her hand to the mouth as if to remove something from it. The convulsions ceased for several days, but afterwards returned with more violence than ever. The use of the mercury was suspended for six days, and in its place I substituted musk, of which the patient took six grains a day. This medicine did more harm than good; terrible

convulsions came on, and to the loss of speech was now superadded the loss of her intellectual faculties. For all this I did not consider myself obliged to give up the musk; but I recurred to the employment of the corrosive sublimate pills, and with them ordered injections of milk in each of which six of these pills had been dissolved, baths, camphorated frictions, and a blister to the back of the neck.

Fourteen days after this the convulsions had become less frequent; there was an abundant secretion from the nose, frequent sneezing, several stools a day, and copious sweats, particularly about the head; but the sublingual glands were still tumefied, and the intellectual faculties as well as that of speech were still absent. The same remedies were continued, except that the musk was mixed in Huxham's antimoniated wine, and Dippel's animal oil was added to the camphorated liniment. The convulsions became less frequent; at length after about a week her senses returned; in six days after this the patient suddenly began to walk about, and the convulsive motions were changed for cries and violent running about, which recurred periodically every evening; she still continued to carry her hand to the mouth, which excited the secretions both of this organ and of the nose. The muteness remained. Decoction of valerian and bark, and antimonial wine was now her prescription; every evening a dose of calomel, and frictions on the neck and spine with Hoffman's balsam of life and tincture of cantharides. Three weeks after this her speech had returned, and her health was restored.

One circumstance which was very remarkable in this case, and calculated to throw light on its nature, was, that at the time that her health returned she had scabby

eruptions about the mouth and swelled glands in the neck.

5. *Muriate of baryta.*

Although the muriate of baryta is in some respects a new remedy, yet the properties which it possesses as a medicine in the treatment of scrofula are well known. As I have elsewhere given a detailed history of this substance, I must refer to that work in order that I may not repeat what I have already said. I shall be satisfied here with detailing the principal results of my researches.

1. The muriate of baryta acts by a peculiar irritation on the alimentary canal, the conglobate glands, the lymphatic system, and the nerves which enter into their constitution. It overcomes the highest degree of mucous saburra of the digestive tube, and obstructions of the mesenteric glands. Like antimony it dissipates spasm of the capillary vessels and glands, and modifies even the secretions themselves. This substance also acts very efficaciously in local affections depending on a fault in the secretions, such as cutaneous eruptions, ulcers, chronic inflammations, &c. And lastly, the muriate of baryta is a very good vermifuge.

2. But the muriate is especially efficacious in affections of the skin, ulcers, ophthalmias, &c.; circumstances in which it is inferior neither to mercury nor antimony; to which should be added that it is less debilitating to the digestive organs, on which account it may be continued for a longer time. But it is incapable of wholly destroying the scrofulous diathesis, unless it be associated with bitters; for it is not possessed of any tonic qualities whatsoever.

3. It is especially adapted to cases where the lymphatic system is irritated, an irritation which iron, mer-

cury, bark, &c. would not fail to aggravate; also, when scrofula has seized upon organs of a very irritable nature, such as the eyes, lungs, &c.

In the scrofulous affection of the lungs, which it is so easy to exasperate, and where even calomel is too irritating, I look upon the muriate of baryta as one of the best medicines within our reach. I have often seen, and many other physicians have seen it too, this affection in its first stage yield to the persevering use of this medicine, or suspend its progress for a long period of time.

4. It is less useful in the second period of scrofula, in the scorbutic complication, in cases of great weakness, and when disorganization is near at hand.

5. As to the mode of exhibiting the muriate of baryta, the simplest is always the best. It may be dissolved in the proportion of half a drachm, in an ounce of distilled water. This solution is given by the drop, in doses of from ten to fifty drops, according to the age of the individual. When it is prescribed for children, a little syrup is added to remove whatever irritating properties it may possess: some antispasmodic or aromatic substance should be substituted for the syrup, provided the stomach be affected with spasm or atony.

Its activity as a remedy in diseases of the skin will be found to be much augmented by adding three drachms of emetic wine to each ounce of the solution, or by accompanying its use with that of the ethiops mineral, Plummer's powder, bitter sweet, cicuta, &c. In subjects who are weak but entirely exempt from irritation, the combination of muriate of baryta with iron possesses great activity. I commonly employ the following formula: muriate of baryta, muriate of iron—ana. half a drachm; dissolve them in distilled water and syrup of orange peel—ana. one ounce. The dose is from twenty to thirty drops and upwards, every three hours.

The solution of muriate of baryta is also very useful in eruptions on the skin and in blemishes on the cornea.

6. *Muriate of lime.*

This article enjoys nearly the same properties with the one we have just been considering, except that it is more irritating; indeed it more decidedly increases both the sweat and urine. It requires therefore more precaution in its exhibition.

Fourcroy praised it highly. The Dutch physicians employ it very much in scrofula, and I have used it successfully myself.

A child six years old had long had some very hard glands in the neck. I directed for it thirty drops of a solution of muriate of lime in the proportion of one drachm of the muriate to one ounce of distilled water; the dose was repeated every third hour. The medicine procured fluid stools every day, and manifestly increased both the perspiration and urine. In a fortnight the size and consistence of the cervical glands were considerably diminished.

7. *Bark and other astringent tonics.*

Bark occupies a distinguished place among those articles which may be opposed to the poison of scrofula. It would be useless to exhibit in this place the proofs of a truth already known to every body; I shall, therefore, confine myself to a few observations:

1. Inasmuch as the proximate cause of the scrofulous disease consists in a simultaneous condition of weakness and irritation, bark could not fail to be a useful remedy against it: by increasing the strength, it should occasion the disappearance of the irritation, which, in these cases, is a consequence of atony. I am convinced

that the persevering employment of this remedy, seconded by a good regimen, is one of the most efficacious means which we possess of opposing the disease under consideration.

2. It is at least an excellent palliative. By raising the constitution to the requisite degree of energy, it effects the resolution of atonic engorgements with as much certainty as the best deobstruents ; while the deobstruents, properly so called, consuming rather than repairing the forces, only occasion an increase in this kind of obstructions.

3. The same medicine affords us very precious resources in scrofulous inflammations. But these cases demand a very precise indication. We ought to be well informed as to the question, whether there be really a state of atony, and whether the irritation which constitutes the inflammation be a consequence of weakness, as it is in what are called passive phlegmasias. Here it is that bark is a powerful antiphlogistic ; and as this is one of the commonest cases in the scrofulous inflammations, it follows that this article suits them perfectly well.

But there are some other cases in which this medicine, far from being useful, is on the other hand very injurious ; that is, it increases the inflammation and occasions it to pass on to suppuration. Such are those cases in which hypersthenia forms the principle of the phlegmasia. On other occasions the bark only becomes hurtful because the patients are endowed by nature with such a great susceptibility, that even the mildest tonics become for their systems positive stimulants.

It happens frequently enough that we are warned of this troublesome disposition by the habit of body, the dryness and tenseness of fibre, a plethoric state, &c. But most commonly, there is need for more direct proof:

we must then give the bark and carefully watch its effects, so as to continue or suspend its exhibition according to the impression it may produce on the patient.

4. Hence arises the necessity of associating with the bark some antispasmodic remedies, narcotics, and even antiphlogistics, so as to obviate its too irritating impression, and to compel it to act only by its tonic property. Such is the end of its combination with opium, hyosciamus, cicuta, &c.

5. It is with analogous views that medical men have associated the tonics, and particularly the bark, with deobstruents. It often happens that we have destroyed all the complications, that the patient is well disposed, and yet the best deobstruents produce no effects. This is not because the primary cause still continues to exist, but because the lymphatic vessels want the necessary degree of force to effect their resolution. It is evident that the continuance of these obstructions depends on want of tone. It would be vain to continue in the use of deobstruents; the indication for these articles is gone by; they would aggravate instead of diminishing the evil. We should have recourse to the tonics, which become the real deobstruents in these cases.

The same rule holds good when there exists in the outset a great degree of weakness; that is, we must at once unite the tonics with the deobstruents, especially when the scrofula is the fruit of an hereditary temperament, of exhaustion of parents, or when the patients have lived in a humid or unwholesome air.

6. It is very important to keep a careful watch over the state of the digestive organs during the administration of bark; for observation has proved that it produces no effect when those organs are in a bad condition. I

am persuaded that to forgetfulness of this precept is owing the inefficacy of this medicine in many cases. Proper purgatives should therefore be exhibited whenever the indication may present itself: and, in doubtful cases, the bark may be combined with rhubarb, tartrate of potassa, acetate of potassa, muriate of baryta, &c.

7. The nature of the complications, and the stage of the disease sometimes strengthen the indication of the bark. Such, for example, is the combination of scurvy with scrofula; the stage of disorganization which constitutes the third degree of the disease, &c.

The best mode of exhibiting the bark is to give it in substance; but it should be freshly pulverized and reduced to a very fine powder.

Its conjunction with ethiops mineral and a little cannella has appeared to me to be a very active formula.

If the stomach can not bear it in this form, it may be given in a fluid state. But I would observe, that decoction occasions it to lose its most subtle and active principles, and cold water dissolves only a small portion of its astringent principles. Thus, each of these preparations has its advantages and inconveniences: in order to profit by the one and to avoid the other, I mix the cold infusion and the decoction together. I infuse half an ounce of bark in eight ounces of cold water for several hours; on the other hand I boil one ounce of it in twelve ounces of water until they be reduced to six, filter it; and then mix the infusion and decoction together. The dose of this mixture is two spoonfuls every two hours.

The activity of drinks prepared from bark may be augmented by joining with them the anti-scrofulous articles, such as cicuta, antimony, baryta, &c. combinations so much the better understood, as the metallic

salts, and particularly those of antimony, lose, in this way, their faculty of exciting vomiting and irritating the bowels.

Magnesia, the alkalies, the volatile tincture of guaiacum, and aromatic substances united with the cinchona, add to its activity. These preparations, which are more or less exciting, are particularly indicated in cases where there is a want of sensibility. Tonics, alone, would here produce no effect, because they would not be felt. In order to reanimate the sensibility we should unite stimulants with our tonics.

The external use of bark has the double advantage of causing a greater quantity of the substance to penetrate the interior of the body, and of permitting its application to ulcers and chronic ophthalmias, where reiterated fomentations with bark and cicuta produce excellent effects.

What we have said concerning the Peruvian bark is applicable to the bark of the willow and the horse chestnut, which possess the same properties, with the exception that they are not so active.

We shall close this article by relating a few cases.

A child two years old, and evidently rickety, had several swelled glands; the belly was somewhat tumid, he could not stand on his feet, and his whole appearance announced a great degree of debility. I prescribed a mixture of one drachm of carbonate of potassa dissolved in one ounce of vinegar, and half an ounce of tincture of rhubarb, and as much syrup. The patient took two spoonfuls of this mixture every day, and employed frictions over the abdomen with flannel impregnated with aromatic vapours. This plan producing no good effect, I substituted for it a decoction of madder with an addition of salt of tartar. A diarrhea now came on, which exhausted his strength, and the disease increased

in violence every day. Suddenly the ends of the bones began to swell, the abdomen grew larger, and the scrofulous tumours increased in number. Such was the deplorable state of this little patient when I prescribed for him an infusion of one ounce of cinchona, two drachms of orange peel, a drachm of mace in a pint of mild wine, an infusion of which he took half a spoonful three times a day; he at the same time had his body washed all over with cold water. This new treatment was soon followed by evident improvement. In a few weeks the patient became lively, could walk about, and the swellings of the abdomen and of the ends of the bones were lessened. The persevering use of the cinchona and cicuta completed the cure.

A girl fifteen years of age, who had been scrofulous in her infancy, and formerly subject to frequent discharges from the ears accompanied with deafness, was seized a year since with scarlet fever. A metastasis took place to one ear which reproduced for some time the discharge from the ear; it at length ceased, and the hearing remained very hard. A hope was entertained that it would be restored on the appearance of the menses; but on the contrary, the deafness was never more intense than at the period of their eruption. She still had some symptoms of the scrofulous habit; and there was a great degree of general debility. I ordered her to have a glass of Seidschitz water every morning, and a scarified cup to the back of the neck once a month; she also had mercurial frictions behind the ears, a decoction of bark for her drink, and a blister on each arm. In a week the patient could hear rather better. I increased the dose of the bark, and in three weeks her hearing was entirely restored.

A young man aged eighteen years, who had been scrofulous and rickety in his infancy, had the bones of the

foot swollen, scrofulous ulcers, engorged glands, a general cachexy: he was very weak and stupid, but exempt from irritation. I made him take the balsamic essence of sublimate, so much recommended by Piderit, with a decoction of guaiacum wood, stems of bitter sweet, and pine cones. A few weeks later he had a strong decoction of bark, and bathed his feet twice a day in a concentrated decoction of willow bark, in which compresses also were dipped to be applied to the ulcerated parts. In a few months the improvement was manifest; the ulcers closed, the tumefaction of the bones and glands diminished, and the patient obtained a cure as complete as he was susceptible of.

8. *Acorn coffee.*

What I have said in regard to the cinchona is applicable to the coffee made of acorns, with this difference, that here the astringent principles are found united with an oily principle which modifies any irritating property they may possess. In fact, the acorn coffee is less stimulating than the bark; whence it follows, that it possesses the advantages of the astringents without their inconveniences. The stomach also bears it better. In fine, it is an excellent stomachic; and its effects are not confined to raising the tone of the digestive organs and the rest of the constitution merely, but it also acts as an excellent deobstruent in all cases of mesenteric obstructions that are kept up by debility. To all these properties the acorn coffee adds that of being nutritious, as is proved by the embonpoint of those who make use of it. Let us acknowledge our obligations to Marx, for having made the use of it so common. How numerous are the children affected with marasmus that he has saved by this means!

The infusion of acorns is one of my favourite reme-

dies in mesenteric atrophy, incipient rachitis, glandular engorgements, asthma and cough. Continued for a long period of time, it is one of the most powerful means within our reach for effecting the complete eradication of the scrofulous disposition.

In several instances I have continued its use for six months in succession, with a success so complete, that I have, without any other aid, been enabled to dissipate mesenteric obstructions of the worst character.

When torrefied, reduced to powder, and mixed with cicuta, the same article produces excellent effects.

9. *Iron and ferruginous preparations.*

Although, rigorously speaking, iron belongs to the same class as the bark, it differs from it in several respects. In the first place it is more astringent, and therefore better qualified to condense the animal fibre; it is also more irritating, and consequently more exciting to the vascular system. Finally, it mingles, combines with our very substance; for chemical analysis has detected it in our organs, whose cohesion it was doubtless intended to augment. The above is enough to make us at once appreciate the great utility of such an article in the scrofulous diathesis, in which, to repeat it again, the irritation of the lymphatic system is only a consequence of its weakness. But the greater the energy of this article, the greater is the prudence required on the part of the practitioner who employs it. The best weapons are the most dangerous in the hands of those who know not how to make use of them.

1. Iron, as I just now said, is more astringent than bark. It is not adapted to those hard and immoveable indurations in which the cohesion is already too great.

2. As an excitant of the sanguiferous system, it is clear, that it would aggravate the condition of the pa-

tient, provided there were the slightest tendency to inflammation. Before administering the martial preparations then, we should prepare the patient for them, not only by calming the irritation by which he may be at the time affected, but also by weakening him so far as that these means may be incapable of developing too great a degree of excitement. I consider this preparation of the patient as indispensable to a successful administration of iron.

3. When the lungs are irritated, when they are the seat of some minute glandular swellings, if there be cough, or flying pains in the breast, be careful to avoid the martial preparations, for they would bring on the pulmonary consumption, with which such patients are already menaced.

4. The same remark applies to cases in which an internal suppuration is going on.

5. But, is the patient of a light complexion? Has he a lax fibre? Does his whole constitution announce weakness? Is he disposed to the serous diathesis? The preparations of iron work miracles in such cases.

6. So also, when, after a long use of them, deobstruents, and particularly those drawn from the class of antiphlogistics and of narcotics, produce no effects, then, I say, martial preparations combined with these means, or administered immediately after them, rouse the sensibility which habit had blunted, and confirm the effects of their curative virtues. In general, the greater the weakness, the stronger the indication for the ferruginous preparations, and the more manifest their efficacious action.

7. But it is in rickets that iron is sovereign. It is worthy of remark, that subjects affected with this disease easily bear the iron in substance, which, moreover, is the best way of administering it. It succeeds well

in very weakly children. I often make use of the following mixture: iron recently pulverized, rhubarb root, canella, ana. one grain; carbonate of magnesia, two grains; white sugar, one scruple. Mix and reduce them to a very fine powder for one dose, to be repeated morning and evening.

8. As regards the forms for exhibiting iron, experience has satisfied me that none are preferable to iron in substance, when reduced to an impalpable powder. I have also a high opinion of the ethiops mineral. But as a deobstruent, I recommend as preferable, the ammoniacal martial flowers (sublimed ammoniacal muriate of iron), the muriate of iron, the martial sulphuric ether, and even the chalybeate mineral waters. A very good mode also of administering iron, is to incorporate it with some bitter extract. Lastly, I have had much reason to be pleased in the treatment of scrofula, with a mixture of iron and sulphuret of antimony. This mixture is peculiarly useful in asthenic affections, accompanied with cachexy of the lymphatic system.

The external use of iron, and especially ferruginous baths, is still more efficacious than its internal administration. We shall return to this subject in another place.

A girl fifteen years old, of a strumous constitution, had had all the symptoms which usually precede the eruption of the menses; but a whitish discharge took place, which soon became so irritating that the genitals were quite excoriated. At the same time, the glands of the neck and upper lip swelled, and the feet became œdematous. I made her take, three times a day, one scruple of cicuta with an infusion of sassafras wood, mad-dar root and liquorice wood; in the evening she had pills of guaiacum, soap, calomel, and golden sulphur of antimony; and finally, I made her employ lotions of the

surface of her body with lime water. In a fortnight the œdema had disappeared, but the leucorrhœa and swelling of the genital parts remained; nevertheless I thought proper to continue the treatment, only adding to it some of Hoffman's balsamic pills. In a few months the menses were established, and the state of the patient in some respects sensibly improved; but the swelled glands were more numerous, the nose swelled and was covered with pimples, the nasal passages were obstructed, the discharge from the genitals increased, as well as the œdema of the feet. I now had some bitter extracts and a little tartarized antimony dissolved in an appropriate liquid, and with them prescribed pills composed of galbanum, sal ammoniac, rhubarb, and squills. Far from growing better, the chlorotic state of the patient made daily progress. Then, considering that this state of things depended on the scrofulous virus, I ordered for her a martial wine composed as follows: iron filings, zedoary root, black hellebore, orange peel—ana. two drachms; myrrh, one drachm; digest in two pints of wine. The dose was two or three ounces, to be taken every day. The state of the patient underwent a visible change under this treatment; the menses took their natural course, the vaginal discharge and the scrofulous symptoms were dissipated, and the patient entirely recovered.

A little boy, two years and a half old, who was both scrofulous and rickety, having glandular engorgements and swelled bones, was so weak that he could not walk. I at first prescribed for him a mixture of magnesia, tartrate of potassa, rhubarb, and fennel seeds. Finding that this plan produced no effect, I substituted in lieu of it a powder, composed of carbonate of magnesia and fennel seeds, ana. 2 drachms: rhubarb root, 1 drachm;

filings of iron reduced to very fine powder, half a drachm; canella bark, 1 scruple; white sugar, 1 drachm. The patient took a pinch of this mixture in a little water four times a day. Such was the efficacy of this prescription, that in a short time, not a vestige was left either of his scrofulous swellings or of his rickets.

10. *Aromatic and stimulating tonics.*

A great error has been committed in not making a freer use of aromatic substances in the treatment of scrofula, for experience has proved that none are more worthy of commendation; but the sassafras deserves a preference over all other articles of the same class.

1. As there enter into its composition an astringent principle and a volatile oil, it is at the same time tonic and stimulant. It is to this double property that it owes its faculty of strengthening and exciting the digestive tube, of raising the general tone of the constitution, and of restoring the secretions, especially those of the kidneys and of the skin.

2. It is this also that renders it so valuable in a multitude of cases, where the weakness of the digestive organs is so great, that the common tonics would produce no effect. It may even be said to attack the scrofulous vice even at its very root, since it prevents the alteration of the lymph by insuring a good digestion.

3. By reanimating the vital forces, it withdraws the economy from the state of stupor into which it had been plunged; it condenses the fibre whose relaxation forms one of the essential principles of the scrofulous diathesis; it quickens the circulation, augments the animal temperature; in a word, it excites all the organs, and particularly the lymphatic system and the glands. Under these views I consider the sassafras as one of the fundamental means in the treatment of scrofula, pro-

vided always the use of it be persevered in. What I have above said is the result of an experience of twelve years, but it must be understood that I have frequently employed it for a whole year together.

4. Not only does the sassafras destroy even the very disposition to the malady under consideration, but at the same time it dispels a crowd of obstinate symptoms produced by it. There is no better means to be employed, whenever it is necessary to excite febrile action, for impressing a shock on the organs, and quickening the circulation of the fluids. But it appears to me more especially indicated in the cutaneous affections, glandular indurations, and for the destruction of the disposition to scrofula. I ought also to remark that the infusion of this substance, seconded with occasional purgatives, has sufficed in my hands for the cure of tinea.

5. By means of the artificial fever which it produces, the sassafras enjoys the advantage of transferring the scrofulous disease from the interior to the external surface of the body, where it produces eruptions, abscesses, engorgements, &c., symptoms which are always more easy to cure than those which are developed in the interior of the body.

6. It is also a very good means of repairing the weakness introduced into the system by the use of mercury, antimony, narcotics, baryta, &c. Indeed, I am in the habit of accompanying the use of these latter means with an infusion of sassafras, and I assert that I have good reasons for being satisfied with the practice.

7. But it is injurious in all persons of a dry and irritable habit, when the sanguiferous system is excited, when there is a threatening of inflammation, and in cases of slow fever, or in the colliquative state.

The best mode of administering the sassafras, in my

opinion, is to infuse it in boiling water, and to take it cold. Ebullition has the inconvenience of depriving it of its aromatic principles, to which it is indebted for the greater part of its virtues. I commonly prescribe it as follows:—sassafras wood, four ounces; roots of liquorice and madder, each half an ounce. Take an ounce of each of these substances, cut into small pieces, and infuse them in a pint of hot water. The patient should drink one half in the morning and the other in the evening. This infusion is not at all disagreeable, and children readily take it in milk with the addition of a little sugar.

In obstinate cases, I add to the above mentioned infusion, the cicuta in doses of two or three drachms (grains?). The effect of this mixture is to increase the activity of the sassafras, and to deprive the cicuta of any dangerous properties.

I have sometimes employed, with great advantage, the essential oil of sassafras, (as recommended by M. Thilenius) by mixing with it some antiscrofulous powder, particularly the burnt sponge and the cicuta; but it is so irritating that it would be dangerous to give it to children in doses of more than one drop per day.

11. *Narcotics.*

Opium, hyosciamus, cicuta, belladonna, bitter sweet, and all the articles which compose the class of narcotics, are very much employed by modern physicians. Endowed with the property of diminishing both irritability and sensibility, they deprive our organs of the ability to react, and in some degree assume the mastery over the vis medicatrix naturæ. But in able hands they have produced effects so extraordinary, and have contributed to the cure of so many diseases reputed incurable, that the employment of them daily becomes

more extensive. There is scarcely a disease, not excepting even scrofula, in which they have not been employed with much advantage. For my own part, I am well convinced there are cases in which they are absolutely indispensable, although I am free to confess that the use of them is somewhat abused. This depends on the *general* manner in which the science of pathology is regarded at the present day. In fact, it can not be denied that there is a strong tendency to see nervous affections in every thing, and indeed they are very common in our days. The consequence is that a prodigal use is made of the narcotics, as if no danger could possibly follow the abuse of them. Founding my observations on their mode of acting, and on the nature of the scrofulous affection, I shall now endeavour to determine their advantages and inconveniences.

1. Their immediate and essential effect is to diminish the sensibility, and even, in some degree, the irritability also. Now, the essence of the scrofulous vice consists, as we have before said, in a simultaneous state of irritation and weakness of the lymphatic system. Therefore, narcotics may suit very well as far as regards the first of these circumstances, but not so well as to the second; and as, in general, the irritation depends in this case on weakness, it follows that these medicines can only produce a temporary relief, even in the most fortunate circumstances. I repeat, that tonics alone are capable of effecting a solid and durable cure.

But when the irritation is primitive, or at least when it is not a consequence of weakness, every thing capable of diminishing sensibility may be useful. In this view the narcotics deserve a distinguished place in the treatment of this sort of irritation. Thus it will be perceived that they may be indicated in false scro-

fulous tumours, or those glandular tumours which are the effects of a venereal taint, of the measles, or any metastasis; in a word, in all cases where weakness does not constitute the principle of the malady. I doubt very much whether the praise which has been so freely bestowed upon opium in the management of scrofula, does not depend on the imperfect distinction which has been made of the above named cases.

2. Whether the narcotics be given in doses too large, or whether the physician neglects to combine them with tonics, a risk is always incurred of relaxing the general tone of the constitution, and thereby of promoting the tendency to scrofula.

3. Most of these articles, and opium chiefly, weaken the digestive forces, which it is so much the more important to retain in a good condition, as this is one of the principal sources of the disease in question.

4. But although the narcotics may not be considered as curatives in the scrofulous diathesis, they are sometimes very useful in combating the accidental affections which are complicated with it. I here allude to the nervous affections; for whatever may be the utility of the narcotics, how varied soever may appear the effects they produce, these effects are all dependent on their antispasmodic properties. Thus it is by destroying spasm that they promote the resolution of engorgements. For this purpose I particularly recommend the external application of these articles. I am acquainted with cases wherein the topical application of opium, cicuta, extract of belladonna, &c. has effected the resolution of the very hardest engorgements, an incontestible proof that these engorgements were of nervous origin.

It is by destroying spasm that they ameliorate the suppuration of ulcers, that they restore the equilibrium

of the secretions, that they facilitate the re-absorption of effused matters, &c. Whence it follows, that whenever there is no spasmodic affection to combat, the narcotics are more injurious than useful.

Finally, the property they possess of diminishing the natural susceptibility renders them infinitely useful in the affections of those organs in which this susceptibility is great; such as the eyes, lungs, &c. In fact, as irritation in these organs easily passes on to disorganisation, it is very important to lessen their irritation, even when we are unable to destroy the cause which produces it. Hence arises their utility in scrofulous consumption.

From what has been said it follows, that the narcotics are incapable of effecting the cure of the scrofulous diathesis; but that they may contribute to its cure,

a. By repressing the vicious action of the lymphatic system.

b. By diminishing the natural disposition of this system to take on irritation.

c. By obviating the too irritating qualities of the tonic medicines.

But whenever it is deemed proper to administer these articles, they must be combined with tonics, in order to prevent the evil effects they might produce. Care must be taken to prevent debility of the digestive organs, and I believe that in this respect, the external possesses great advantages over the internal use of narcotic medicines.

1. *Cicuta*.—*Cicuta* is an article which has been too much praised by one party, and too much condemned by another. This I suppose depends on differences in its qualities, according to the countries where it is collected. I have had occasion to be convinced, that that which

grows in valleys and moist countries is much more efficacious than that which grows in mountainous situations. I shall offer on the subject of *cicuta* one remark which is applicable to other plants. It is, that in the first few years of their introduction into the *materia medica* they are very energetic, then gradually lose this energy, and at last grow out of fashion. On what does this difference depend? It happens so, because the druggist, in the beginning, procures the plants from the countries where they grow naturally, while, on the other hand, as the consumption of them increases, he grows them in his own garden, and in this way deprives them of the greater part of their original virtues. Plants, therefore, whose properties are owing to some subtle principle, ought to be collected in their native countries. Think what would be the consequence to the valerian root, and the arnica, if every one should cultivate them in his own garden. The same is true of *cicuta*. Another cause of the inefficacy of these same plants, is the manner of treating them, by fire. In fact, if they are subjected to too great a degree of heat, the narcotic principle disappears, and the plant loses all its strength.

Experience has taught me, that *cicuta* deserves a place among those narcotics which may be made to help us to the cure of the scrofulous taint. It exerts, like opium, belladonna, &c. a special action on the nerves. It is injurious to children; it weakens in some degree the digestive organs, and the general tone of the constitution; it does not irritate, on the contrary it diminishes irritation. It is therefore perfectly indicated in scrofulous inflammations, in lesions of very irritable organs, as for example of the lungs, even though a little fever might be present, or in phthisis itself.

Lastly, the cicuta is not less useful in the management of the symptoms, such as glandular swellings, ulcers, eruptions on the skin, marasmus, &c. than in the disease which produces them. I am very ready to give the juice of this plant in doses of from ten to sixty drops, with the juices of other vegetables. I also give it in powder or in infusion (after having previously dried it very carefully) alone, or conjoined with sassafras, as I have already remarked, when speaking of the latter named article.

Lastly, the extract of cicuta, united with antimony, mercury, baryta, cinchona, &c. forms a very energetic preparation; but it ought to possess in a high degree the odour of the urine of mice, which is peculiar to it.

The external use of cicuta in inflammations, ulcers, swellings, &c. whether in decoction, or solution of the extract in some appropriate fluid, is equally efficacious. We shall speak in a future page of baths of cicuta.

I shall proceed to state some facts in confirmation of what I have said regarding the properties of this plant. Of three patients, two of whom were affected with scrofulous scabs on the head, and the third with tinea, I cured the whole of them by making them take morning and evening some cicuta powder in an infusion of sassafras, and occasionally a mercurial purge. I at the same time directed fomentations to be used on the head of one of them, with pledgets, dipped in a decoction of cicuta prepared by tying it up in a bag while boiling; and on the heads of the others with an aqueous solution of the extract of cicuta.

A child eight years old, who was affected with swelled glands in the neck, asthmatic, and troubled with a dry cough of a scrofulous nature, took a powder composed of cicuta, magnesia and golden sulphur of anti-

mony, with an infusion of bitter sweet, sassafras and liquorice root. It continued this treatment for six weeks and was entirely cured.

Another child ten years old, besides glandular swellings, had a tumefaction of the nose of more than a month's standing. He made use of the powder of cicuta above spoken of; he also took it as snuff with a little sugar and calomel; and was cured.

A scrofulous woman was seized, shortly after her lying in, with a violent and constant cough, which at first was dry, and afterwards moist, accompanied with a few flying pleuritic pains, fever in the evening, and all the symptoms of scrofulous phthisis. After having tried several medicines without effect, I made her take pills of the powder and extract of cicuta. At first the patient took ten grains a day, but I gradually augmented the dose to half a drachm. I prescribed a decoction of colt's foot, bitter sweet, and white hoarhound in whey, and an issue to each arm. Such was the effect of this method, that all the symptoms, even those of the incipient phthisis, had disappeared in the course of a month and a half.

Another female, affected with a scrofulous cachexy, had suffered for two months with a leucorrhœa and a complete suppression of the catamenia; she had moreover a scrofulous ulcer on the foot. I made her take Plummer's powder with cicuta, and the ulcer was covered with extract of the same plant. This treatment succeeded so well, that the ulcer is healed entirely, although the catamenia have not yet returned.

2. *Opium*.—In all other circumstances, opium is, without contradiction, the first of the narcotics; but in the scrofulous diathesis there are other articles prefe-

rable to it. Indeed it possesses some properties which render its use very little advisable in the management of this malady.

1. I have always observed, that to a considerable degree it weakens the digestive apparatus, and disorders its functions. This is perhaps a slight inconvenience when it is given to fulfil a temporary indication. But the same can not be said of it in an affection where its use has to be continued for a long time, and which comprehends a disordered state of the digestive functions amongst its essential causes.

It is well known that opium enjoys the power of suppressing the exhalations and secretions of the intestinal canal, and of paralyzing its peristaltic motion. This is proved by the thirst, the dryness of the throat, and constipation occasioned by it. It arrests the process of chylicification, and that becomes a new cause of the scrofulous vice. If attempts be made to overcome these inconveniences with purgatives, the patient is still further weakened.

2. In this malady it rarely happens, that the *primæ viæ* are clear, and opium is never suited to cases where they are not.

3. It disposes to the occurrence of colliquative sweats, and consequently would increase this disposition in cases where it might be already existing.

4. Too much precaution can not be used in giving opium to children. I have several times remarked that a large dose, or the long continued use of this medicine may produce at this tender age a dullness of the sensibility, which may easily extend to the whole economy. At other times it acts like the intoxicating poisons, and produces congestions of the brain, and even fatal apoplexy. I knew a case in which twelve drops of laudanum, taken at one dose, actually killed a child.

Judge after this, whether it is prudent to give opium as some physicians do, as a soothing powder.

Be this as it may, I shall now proceed to state what experience has taught me in relation to the employment of opium in the treatment of the scrofulous diathesis.

1. It is incapable of effecting a solid and durable cure of the scrofulous taint.

2. But it is very efficacious in the management of scrofulous ulcers, and other ulcers that are accompanied with pain. I have sometimes cured the most obstinate ulcers with Dover's powder, which under these circumstances merits a preference over all the other preparations of opium. It seems to me that there is no medicine comparable with it for removing a settled spasm of the skin, and re-establishing the exhalation.

3. It is well adapted to cases of painful engorgements and of spasmodic inflammation, in a word to all cases where there is pain; and what is remarkable the higher the degree of sensibility the better it operates.

4. It is often very useful as a topical application, for removing obstinate scrofulous swellings, in scrofulous ophthalmy, and in other inflammations and ulcers.

3. *Hyosciamus*.—Excepting that it is less energetic, the hyosciamus possesses the same properties as opium, and that too without its inconveniences. In fact, far from binding up the bowels, it rather acts as a laxative: it is not, therefore, so decidedly contra-indicated by disorder of the primæ viæ. It neither produces thirst nor congestion of the brain. Lastly, it is not heating like opium: so that there can be no danger in giving it even if slight fever be present. I use it much more willingly than opium in the diseases of children.

In treating the scrofulous habit, I employ it as an

antispasmodic, with the view of calming a too high degree of irritation, spasm, or the convulsions which sometimes ensue upon them; as a resolvent to remove glandular swellings, and particularly the pulmonic tubercles that are accompanied with cough.

In fine, the hyosciamus produces very good effects in painful inflammations, and in ulcers that occur in very sensible parts. Applied as a fomentation over the eyes, with marshmallow flowers, and some drops of extract of lead, it is very useful in scrofulous ophthalmy.

4. *Belladonna*.—'This is another heroic medicine, incapable it is true, like all the rest of its class, of effecting a radical cure of the scrofulous vice, yet very efficacious in the management of certain symptoms. *Belladonna* is chiefly commendable in those glandular tumours which threaten to degenerate into scirrhus, in chronic and callous ulcers, and in the convulsive spasms which arise from a scrofulous irritation.

It ought to be observed however, that this plant is a dangerous one; but its hurtful qualities may be corrected, and it may readily be adapted to the infantile constitution by preparing an oxymel of belladonna, just as we prepare an oxymel of squills.

I will relate the following in corroboration of what has been said.

A child was afflicted within the first year of its life with scabs on the face, and swelled glands around the neck, which were successfully combated with ethiops mineral and infusion of sassafras. The following year it became rickety, and was cured of this new symptom by Darel's tincture, and tonic baths. But some time afterwards, a very singular symptom made its appearance: when the child opened its mouth to speak or to cry, it could not shut it again. This state (a species

of pulmonic catalepsy) was soon changed into epilepsy. I made a mixture of equal parts of Darel's tincture of rhubarb and oxymel of belladonna. The patient took sixty drops of it evening and morning, in an infusion of valerian root and green orange leaves. This treatment was followed by the happiest success.

5. *Bitter sweet*.—The bitter sweet is a precious remedy. It possesses the twofold property of promoting the resolution of engorgements, and of exciting the secretions. Its narcotic effects are very slight unless it be given in a large dose. It enjoys the important advantage of not disordering the digestion, and of rather increasing than palling the appetite.

It is recommendable,

1. To favour the radical cure of the scrofulous vice. It is an excellent corrective of the bark, of lichen islandicus, and of all the tonics.

2. In obstinate cutaneous eruptions and scrofulous ulcers. But to learn the whole efficacy of this plant the dose of it must continually be increased. I commonly begin by half an ounce every day in decoction, and increase it progressively until the patient feels giddy. I have sometimes carried it to two or three ounces for a dose; in this manner we may be able to appreciate the whole amount of its power.

3. In cough, asthma, oppression and pain in the lungs, and even in incipient phthisis. I esteem the dulcamara particularly in these cases, because it possesses the inappreciable advantage of removing irritation, and of facilitating expectoration by moderately corroborating the respiratory organs. It is by this means that I have several times cured scrofulous phthisis in its first stage, as well as pituitous affections of the lungs. In the latter, I associate the lichen islandicus

with belladonna, with the greatest advantage. In one case I was so happy as to put a stop to a dry cough of scrofulous origin, and which had lasted more than a year, by means of a simple decoction of bitter sweet.

The best mode of exhibiting the bitter sweet is in decoction and extract. M. Althoff recommends in a special manner, pills composed of the extract, and crude antimony (sulphuret of antimony)*.

12. *Foxglove.*

The properties of this plant are somewhat analogous to those of the narcotics; but it acts more powerfully on the lymphatic system. It facilitates lymphatic absorption, augments the secretion of the kidneys, and sometimes that of the salivary glands.

On the above mentioned accounts digitalis ought to be ranked among the most heroic of the antiscrofulous medicines.

1. It contributes to the radical cure of the scrofulous vice by favouring lymphatic absorption. Nevertheless, the long continued use of this article would not perhaps be without inconveniences.

2. It resolves glandular swellings, especially if united with mercurials.

* *Note by the author.*—Tobacco ought to be arranged under this head. A little girl, eighteen months old, presented all the symptoms of the scrofulous diathesis. The abdomen was large and hard, the stools colourless, the head large, the face bloated, the nose and upper lip swelled, dilated pupil, &c. Almost always tormented with hunger, the little patient acquired a peculiar appetite for snuff. Her physician allowed her to take a teaspoonful of it every day. She continued the use of it for two years, took occasionally a gentle purgative, and within that interval recovered a perfect state of health. The child, now fourteen years old, has been healthy ever since. Fischer, diss. cit.

3. It dissipates lymphatic effusions and scrofulous dropsies.

4. It is an excellent remedy in asthma and scrofulous cough; by exciting the kidneys it relieves the lungs.

5. It may be employed with advantage as an external application in glandular indurations, either by using the juice, or fomentations, or ointments.

The digitalis has been much neglected since the declamations of Lettsom against it. But of all the bad qualities with which it has been reproached, not one appears to me to be well founded. The plant indeed does benumb the sensibility and disorder the vision, but these effects are temporary. However, I have seen them last several weeks in one case where the patient had continued the use of the article for a long time. Further, to avoid these evils all that is necessary is, not to give it in too large a dose, which, besides, is useless, observation having taught me that when it will not act in a small dose (two grains for an adult), it will not act any better in a larger one. The same end is obtained by suspending its use every fortnight, or by combining it with antispasmodics and nervines, such as valerian, opium, volatile salt of hartshorn (subcarbonate of ammonia), castor, and by frequently washing the eyes with wine. But if, in spite of these precautions, the inconveniences which we have recognized as depending on the operation of digitalis should appear, there are no better means of counteracting them than by blisters, volatile salts, and opiates. With these precautions I have given digitalis to children with the greatest success, in doses extending from the eighth of a grain up to a fourth, most commonly in powder, with ethiops mineral or golden sulphur of antimony.

I ought here to repeat a remark that I made when speaking of *cicuta*. It is this: that since the druggists have begun to cultivate *digitalis* in their own gardens, the plant has lost much of its energy. To derive all the good effects that might be expected from it, it should be culled on the mountains where it grows naturally.

A child three years old was scrofulous in the highest degree, and was beginning to be rickety; the abdomen was swelled, and there were glandular engorgements on the neck, the sternum, the ribs, arms, hands, legs and feet, most of them were as large as a small apple. Attempts had been made to discuss them, but they already poured out a watery pus of bad quality, and yet their size remained the same. Such was the state of the patient when I decided on giving him the *digitalis purpurea*. I prescribed for him, evening and morning, a quarter of a grain of *digitalis* in powder, three grains of *ethiops mineral* (black sulphuret of mercury), five grains of resin of *guaiacum*, and a little sugar; for drink, an infusion of *sassafras* and bitter sweet. Every second day he had a warm bath, in which some soap had been dissolved, and into which a decoction of *barley* and *calamus aromaticus* had been poured. This treatment had the desired effect. I saw the child again in six weeks; its complexion was fresh, its belly supple, the glandular swellings had partly disappeared, and the size of the remaining ones was considerably diminished. In fine, he began to walk, which he had hitherto been unable to do. I ordered some juices of herbs and bitters to be continued for some weeks, and baths of *cinchona* and *cicuta*, which completed the cure.

A lady, thirty-four years old, who had been scrofulous in her youth, had for some time had on the side of her neck, glandular swellings, which daily grew larger

and larger; they had already gone so far as to interfere with the respiration. It was in vain that I gave her the burnt sponge, which in my hands ordinarily succeeds in such cases. Mercurials, muriate of baryta, various ointments and plasters, did no good: on the contrary, the glands continued to grow harder and less moveable. I now prescribed a powder composed of digitalis, two grains; pods of senna and white sugar, of each twelve grains; for one dose—to be repeated evening and morning: frictions on the glands with an ointment of which digitalis was a constituent part, and blisters to the arms. After eight days continuance of this plan, it was found that the size of the glands had already begun to diminish, and in five weeks afterwards the patient was cured.

A woman, aged sixty-four years, and of scrofulous constitution, had an ulcer on one of her feet; both feet had been swelled for a long time; but what was most worthy of remark in this case was, that the whole skin was hard like leather (a remarkable symptom of the scrofulous malady). This woman had taken squills for some time without any great benefit. I prescribed two grains of digitalis for her, to be taken evening and morning in an appropriate ptisan. This prescription produced an abundant secretion of urine, and from that moment the skin became supple, the swellings of the feet relaxed, and the ulcer healed in the space of three weeks.

13. *Assafætida*.

Although assafætida may not be placed among the medicines which are curative of the scrofulous vice, it is not less useful in effecting the resolution of engorged glands, in scrofulous affections of the bones, spina ven-

tosa, caries, and the nervous affections which are consecutive to the scrofulous diathesis.

In all these cases assafœtida is valuable, inasmuch as it does not weaken the digestive forces and the general tone of the system ; but its use is not permissible when there is a decided febrile condition.

A little girl, twelve years old, in consequence of the spontaneous disappearance of a scabby eruption on her head, was affected with spasms of all the limbs, complicated with a periodical paralysis, so that she could not take hold of any thing without letting it drop. She awoke every morning with a violent pain of the head ; and her nostrils were always dry. I made her take three times a day ten grains of a pilular mass, composed of equal parts of assafœtida, resin of guaiacum, and extract of valerian ; a ptisan of sassafras ; and once a week, a gentle purgative. In three weeks the cure had become complete.

14. *Burnt sponge**.

Burnt sponge is perhaps the most powerful of all the remedies which are employed to disperse the glandular swellings that occur in the neck. It appears that it exerts a special action on the lymphatic system, which doubtless ought to be attributed to the alkaline and empyreumatic principles which enter into its composition, since other animal substances, similarly calcined, such as sole leather and woollen stuffs, are possessed of analogous properties.

Burnt sponge is chiefly useful in glandular swellings,

* *Note by the American translator.*—I had almost resolved to omit this article, inasmuch as the discovery of the salts of iodine has rendered it nearly obsolete ; but the reader, who may choose to employ the preparations of iodine, can not fail to derive useful hints even here from the sagacious Hufeland.

and especially in the affection named goitre, in catarrhal affections where the functions of the kidneys are languid, and in dropsies dependent on a scrofulous taint, as I shall soon show.

But I ought to warn the reader that the exhibition of this medicine is not without danger, for persons of very weak and irritable lungs. I have had several opportunities of being convinced that it may irritate them so far as to occasion cough and spitting of blood; sometimes it even goes so far as to bring on hectic fever. If, therefore, there should be a tuberculous state of the lungs, it is not impossible that the sponge might occasion them to soften and suppurate.

For the above mentioned reason, I was determined on recommending the sponge ley rather than the powder. I am acquainted with few preparations of the article more active than this. Take sponge that has been cut small, and scorched but not carbonised, one ounce; boil it in one pint of water, and let it infuse for twelve hours; strain, and add a few drops of some aromatic fluid; to be taken in the dose of one table spoonful every third hour—in cases of extreme weakness complicated with a high degree of initiation; I have several times used it with great success, after having added to it some extract of quassia, and myrrh, as well as some laudanum or extract of hyosciamus. Aided by tonics, the sponge is not merely a palliative, it is a curative of the scrofulous diathesis.

A girl twenty years old, of a scrofulous constitution, having a great many enlarged glands in the neck, had for some months been troubled with oppression at the breast, hoarseness, and headach; the menses were disordered. I made her take the above mentioned sponge ley, with Huxham's antimonial wine, and extract of hyosciamus; for common drink, an infusion of bitter-

sweet; she had also a plaster of Burgundy pitch between the shoulders. After twenty-four days continuance of this treatment the enlarged glands were for the most part dissipated, the respiration was free; and in a month more the cure was perfect.

A young man eighteen years of age had been tormented for more than a year with a considerable oppression at the breast. He had, besides, some swelled glands on the neck, and a frequent catarrhal cough. Antimony, gum ammoniac, soap, bitter-sweet, arnica, ethiopsantimonial, guaiacum and cicuta, were employed without success. At length, the patient was directed to take, twice a day, a powder composed of burnt sponge half a drachm, crab's eyes, cicuta, ana. twelve grains, and a dose of Janin's pills every other day. This plan soon produced an evident improvement; in less than a month the oppression disappeared entirely, although the swelled glands in the neck were not completely resolved.

A woman upwards of thirty years old, who had had engorged glands and other symptoms of the scrofulous diathesis, was affected with chronic catarrh, accompanied by cough and oppression at the breast; also, her eyes were red. By turns the dulcamara, the lichen islandicus, antimony, cinchona, quassia and bitter extracts were employed; issues were opened, but without the least success. The feet gradually became œdematous and the urine scanty. Instead of the means above mentioned, resort was now had to the senega and squill. But the swelling of the feet continued to increase. The œdema became general, and ascites made its appearance. The asthma and cough grew daily worse, and no longer permitted the patient to enjoy her sleep. The squill was given in every variety of form, sometimes combined with antispasmodics and sometimes with tonics, but without any amendment. Coming now to the

conclusion that the scrofulous taint was the principle of all the symptoms which have been just enumerated, I prescribed the sponge ley in doses of a table spoonful every third hour, with a solution of the terra foliata tartari (acetate of potassa) in oxymel of squills; besides this she had a decoction of soap-wort root, and burdock. After a few days continuance of this treatment, the urine became more copious, clear and transparent, instead of brown as it was before. In a week the flow of urine was excessive, and exceeded by a considerable amount the quantity of drink taken in; the swelling of the abdomen and extremities visibly diminished. The cough was less, and the oppression of the breast less considerable. The patient perspired freely at night. In a week after this, the feet were reduced to their natural size, and that of the abdomen was lessened by one half. However the oppression returned in a slight degree, with very great debility, which induced me to add to the remedies which have been mentioned a decoction of bark. From that time every thing went on more and more favourably, and in two weeks there was not a trace left of the abdominal dropsy, and the patient had recovered her strength. It is evident that in this case the sponge ley acted better than the most esteemed of the diuretics.

15. *Alkalies.*

Experience has sufficiently demonstrated the utility of these medicines in the treatment of scrofula. The fixed alkalies seem to act in several different manners: they obviate (*incisent*) mucosities of the primæ viæ, and lymphatic vessels, excite these latter and the secretory organs, neutralize acids of the stomach, and thus contribute to destroy one of the chief causes of scrofula; in fine, they appear to exert a direct action on the

lymph itself, and to restore it to a natural state, especially when it deviates from that condition by becoming acid.

Hence it follows that alkalies are clearly indicated in scrofula, when there is acidity of the first passages, when the urinary secretion is obstructed, in obstruction of the glands, in mesenteric atrophy, rickets, and when the vital forces are in a state of considerable langour; they are not so well adapted to the scorbutic state, or where there is colliquation.

The alkalies which are derived from the mineral kingdom are no less useful than those obtained from vegetables; nevertheless, it appears that the former exert less influence on the alimentary canal, and are less debilitating.

The combination of the alkalies with tonics and bark is very useful, inasmuch as it diminishes the astringent property of the latter. The same is true of the solutions of the same articles in vinous and spirituous liquors.

The volatile alkalies act in the same manner as the preceding, with the exception that they are more irritating; they determine especially to the kidneys and skin. On this account they must be carefully proscribed wherever there is fever, or the body is threatened with a sort of colliquation (*sorte de dissolution*); but they are sometimes very efficacious in indurations that are indolent, scirrhus or cancerous. It is not very long since I saw a scrofulous cancer of the eye, for which the lizard had at first been employed with some advantage; but as a sufficient quantity of this substance could not be procured, the volatile salt of hartshorn was substituted for it, and the dose carried to a scruple a day with one drachm of the extract of cicuta. As an external application, resort was had to a solution of two grains of white

arsenic and two ounces of extract of cicuta, in an ounce of extract of lead (liquid acetate of lead). Both the suppuration and extent of the cancer diminished in a visible manner under the influence of this treatment.

We shall return in a future section to the external use of these means.

16. *Absorbents.*

This class may doubtless be found very advantageous by neutralizing acids of the first passages. Indeed, by this simple property they obviate one of the most powerful causes of the scrofulous habit, and contribute to the depuration of the lymph, if we may fairly consider its tendency to acidity as an unnatural condition. Thus, these articles are adapted to cases of incipient mesenteric atrophy, and to lymphatic tumours.

Of the substances under consideration, magnesia is, incontestably, the lightest and most easy of digestion. However, lime, especially that procured from animal substances, such as shells, crab's eyes, egg shells, in which this substance is combined with animal gluten and phosphoric acid, possesses advantages which can not be called in question.

The combination of absorbents with metallic preparations is also very much to be commended. Nevertheless, they ought not to be abused, lest the selenite (sulphate of lime) which they contain might give rise to new engorgements.

17. *Lime water.*

The efficacy of lime water can not be a subject of dispute. I have made very great use of it in my practice, and although I may be ignorant of its *modus operandi*, I can at least speak knowingly on the sensible effects which it produces. Experience then has proved,

that it is an heroic remedy in the cases which I shall now proceed to indicate.

1. In scrofulous diseases of the bones, in caries, and spina ventosa—combined with calamus aromaticus and assafœtida.

2. In obstinate glandular indurations, for the purpose of effecting their resolution.

3. In obstructions of the mesentery and disorders of the digestive functions depending on that cause; to correct acidity of the first passages and ensure a good chylication; in diarrhea, and most of the mucous discharges. Even constipation sometimes yields to this remedy, when it arises from obstruction of the glands, as I have witnessed in the case of a hypochondriac.

4. In pulmonary tubercles, and even in incipient phthisis.

I beg leave to relate two cases, to show cause for the praises which I have bestowed on lime water.

A young tailor sixteen years of age, of a scrofulous constitution and consumptive make, complained of a constant pain under the sternum and of several painful stitches in the breast which appeared and disappeared by turns. The respiration short and difficult, especially on going up stairs; a dry cough increased by motion, expectoration sometimes sanguinolent, pulse small without being quick; circumscribed redness of the cheeks, good appetite, digestion easy. This young man had early weakened himself by the habit of masturbation. All these symptoms clearly announcing the existence of scrofulous tubercles in the lungs, I prescribed the fresh juices of dandelion, tussilago, beccabunga and chervil in whey, a solution of the extract of dog's tooth and dandelion in antimonial wine, and I had an issue opened on each arm. In two weeks after this he was somewhat improved; the expectoration began to

assume a mucous character. The patient now began the use of an infusion of dulcamara and lichen islandicus with whey; the issues were ordered to be kept open. In another week the cough had become more frequent, the pulse quicker and harder, the pain in the sternum was more intense, and there were night sweats. Nevertheless I deemed it proper to continue this treatment, to which I only added a cooling powder composed of nitre, magnesia, sugar of milk, extract of hyoscyamus and a little ipecacuanha. This treatment seemed to calm the spasms a little, but the pains increased, the pulse though small was somewhat hard. I prescribed bleeding from the arm to the amount of five ounces, and the internal use of diluents to obviate the inflammation which began to develope itself in the pulmonary tubercles. The patient was benefited by it. From this period, for the space of about a month, he took alternately cooling antispasmodics and tonics; but the use of whey and the issues was never discontinued. Still, the pain in the sternum continued to be felt, the respiration was thick and very difficult, the cough humid in the morning and dry for the remainder of the day. He sneezed very frequently, the pulse was quick, sweats almost constant, miliary eruptions and occasional bleedings at the nose. As the phthisis appeared to depend on the lesion of the lungs and the scrofulous vice, I prescribed an infusion of half an ounce of cinchona, and as much quassia in two pounds of lime water, of which the patient took three or four half cupfuls every day. This plan at first brought about very little change; sometimes it might even have been said that the pains of the breast returned more frequently. But on the twenty-fourth day the pain of the sternum had ceased, the respiration was free and noiseless, the cough was becoming less frequent, the expectoration

less copious, and there were no more night sweats. The doses of the medicines were augmented, and two new issues were opened on the arms. In six weeks all the serious symptoms were gone, and his strength restored. However, the patient had a relapse six months afterwards, but it yielded promptly to the use of lime water and quassia.

A woman thirty years of age, predisposed to scrofula, although she had none of the symptoms which characterize it, and who had lost two brothers with consumption, had acute pain on the right side of her breast, difficult respiration particularly in going up stairs, violent cough, frequent expectoration, often moulded into the shape of the bronchial ramifications, feverish pulse in the evening. Further, the appetite was good and digestion well performed. Take sal ammoniac (muriate of ammonia), nitre (nitrate of potassa), of each one ounce, golden sulphur of antimony six grains, extract of dog's tooth three drachms, spring water six ounces, simple syrup one ounce. The patient took two spoonfuls of this potion four times a day, and also several glasses of a ptisan composed of dulcamara, dandelion, burdock, liquorice and fennel seeds. I proposed two issues to the arm, but the patient would not submit to them. This treatment however relieved her; the respiration became somewhat freer, but the expectoration remained as abundant as ever, and was at times even somewhat bloody, and fever came on every evening. It was clear that the patient was threatened with both scrofulous and catarrhal consumption; consequently, I thought it a duty to order the lichen islandicus in addition to the remedies above mentioned, and to make her take three cups of lime water mixed with a little milk every day. This treatment had the happiest effects: in the course of the fourth week the respiration became

natural, the pain vanished, and the fever ceased. There remained only a slight expectoration, which also disappeared upon the addition of half an ounce of extract of myrrh to the potion mentioned above. Time has hitherto shown the cure to be perfect.

18. *Soap.*

Soap possesses the same properties as the alkalies, except that it is less irritating, on account of the oil that enters into its composition. It ought not therefore, as some authors have desired, to be stricken out of the catalogue of antiscrofulous medicines. It is not only incisive and deobstruent, but it is also diuretic and purgative, which renders it very valuable in the treatment of the disease under consideration. In children I have often cured the disease in the first stage without any other medicine than eight or ten grains of Venice soap, repeated morning and evening, and seconded by an appropriate regimen.

Saponaceous baths and ointments are also useful agents.

19. *Guaiacum.*

There is scarcely a medicine more irritating to the secretory organs and lymphatic system than guaiacum. It promotes almost all the secretions, stool, urine, perspiration, &c.; it even excites the sanguiferous system, and is not therefore suitable for any irritable subjects, particularly such as are predisposed to inflammations. Neither is it to be relied on for the entire removal of the scrofulous diathesis; but is so much the more strongly indicated in cases of weakness and relaxation, especially if it be requisite to rouse the circulation and secretions, free the body from the mucosities it may contain, provoke critical movements and resolve ob-

structions. But guaiacum is never more efficacious than in scrofulous blennorrhagies, in indolent swellings, and cutaneous affections of a scrofulous character. Combined with the golden sulphur of antimony, it produces in these cases the happiest effects.

Governed by these views, I direct the resin of guaiacum in powder, to be taken in doses of from five to ten grains for children, and in doses of thirty grains for adults, to be repeated three or four times a day, combined with magnesia, columbo root and fennel seeds. I also prescribe it in the form of pills, combined with Venice soap, extract of dandelion, and golden sulphur of antimony; or in an emulsion with gum arabic, with a decoction of bitter sweet as a drink.

At the close of an attack of scarlet fever complicated with angina of considerable violence, a woman, fifty years of age, was seized with a superficial inflammation of the posterior portion of the nasal fossæ, so as to give her the sensation of a stoppage situated in the rear of the velum palati. Whenever she had an eruption of pimples on the face or any glandular swellings on the neck she was relieved of this symptom; as also whenever a discharge took place from the nostrils, which were habitually stopped. I prescribed pills composed of resin of guaiacum, extract of bitter sweet, and golden sulphur of antimony; a decoction of dulcamara, guaiacum shavings and sarsaparilla; a gargle; and injections for the nose, made with a decoction of cicuta leaves. And lastly, I applied blisters behind the ears. Whereupon the patient was perfectly restored.

A scrofulous child, ten years old, had been for a long time affected with a violent nasal catarrh, accompanied with a fetid discharge which was often mixed with blood. In addition to these symptoms it had an attack of ophthalmy. For this little patient, I prescribed the

same pills as for the female above mentioned. I kept the bowels open with calomel, and made it snuff up into the nostrils a decoction of myrrh and cicuta in milk. I prepared an ointment of red precipitate for the eyes, and my patient was cured in three weeks.

20. *Colt's foot.*

In spite of the assertions of modern physicians, the colt's foot is far from being destitute of medicinal properties. But I am not surprised that this opinion is entertained by those who make up their judgment of the properties of medicines by their savour, odour, or the kind of reaction they occasion in the economy. I admit that the tussilago has none of these sensible properties: but this in my opinion is a bad sort of reasoning; and for my own part, I listen to nothing but experience, when I have occasion to decide on the virtues of medicinal substances.

But, experience has taught me that the colt's foot produces very favourable effects in cases of obstructed glands, in cutaneous eruptions, in tinea, and especially in the cough and other pulmonic symptoms dependent on the scrofulous taint.

But, as it is not an irritant, it is particularly adapted to subjects endowed with a great degree of sensibility, to delicate children, to coughs dependent on irritation, particularly in those whose lungs are constitutionally very irritable.

As to the mode of exhibiting it, we may either give the recently expressed juice of the tussilago in doses of two or three ounces, several times a day; or we may prepare a decoction with an ounce of the plant, to be taken in the course of the day. I have several times witnessed the rapid disappearance of obstinate scrofulous engorgements, cutaneous eruptions, &c. under the

influence of this medicine, administered in the manner above pointed out.

Fomentations with colt's foot also produce very good effects in inflammations of the eyes, ulcers and tinea. I have several times seen the fresh leaves of the plant, applied to scabby eruptions, occasion the fall of the crusts and the cleansing of the parts.

21. *Juices of herbs.*

There is an essential difference between the decoctions and the extracts of fresh herbs. This difference is analogous to that between raw and cooked meats. There are in plants certain subtle and volatile principles, which they only retain while in their fresh state, and which evaporate by desiccation or ebullition—even the green sward itself is an excellent curative means, as is proved by the prompt resolution of the swelled mesenteric glands of animals which are put to pasture in the spring; but hay, old straw and the roots of dog's tooth are not possessed of the same virtues. To be convinced of this truth it is sufficient to have noticed the difference between the effects produced by the fresh juice of the dog's tooth, and the decoction of the same plant. The juices of brooklime, lettuce, chervil, sow-thistle, borragé and many other vegetables are the incisives and depuratives *par excellence*: take these same vegetables when dried, and their effects will be found to be null. These two propositions are daily verified in the treatment of scurvy: every body knows that the juices of the above named plants easily triumph over an affection which is essentially asthenic in its character, and that the same plants produce almost no effect when dried. The Boerhaavian school was deeply penetrated with this truth: and consequently made great use of the juices of

these vegetables. It seems to me that they are too much neglected in our own times.

I can not too strongly recommend the practice of administering them to scrofulous persons every spring, always paying attention to the following observations.

1. These plants are never more efficacious than when they are beginning to put forth in the spring.

2. In the spring the lymphatic system, as we have before remarked, is in a state of turgescence so favourable to the cure of the scrofulous taint, that the curative means effect more in a few weeks than they could in as many months at any other season.

The best mode of administering the juices of coltsfoot, brooklime, white hoarhound, chervil, water cress, lettuce, and fumitory is to give them every morning, for five or six weeks, in doses of from one to four ounces, in an infusion of balm, or in some weak broth; the last method is particularly well adapted to children. They may be also combined with bitter extracts, elixirs, or antimonials, which render the effects more prompt.

I have so often employed the juices of herbs in my practice, that it would be easy for me to cite a great number of instances which would place the properties I have attributed to them in the treatment of scrofulous affections beyond the possibility of cavil—but I should fear lest the patience of the reader might be abused by the relation of cases which, beyond this mere circumstance, present nothing remarkable. Let it suffice then to say that I have often seen glandular swellings, cutaneous eruptions, and scrofulous ulcers disappear under the influence of the means I am treating of. In some cases, it is true, the symptoms seemed to grow worse at the outset: but these appearances were deceptive; and indeed were followed by critical movements, so that the

malady yielded very promptly to the use of tonics and the anti-scrofulous remedies, properly so called.

To conclude, experience has proved to my satisfaction that the use of the juices of herbs, continued for several years, is one of the surest means of gradually eradicating even the very predisposition to scrofula.

22. *Bitter extracts and inspissated juices of plants.*

Theories may change, but these articles will continue to occupy a distinguished rank among the antiscrofulous remedies. Indeed they fulfil most of the indications presented by the scrofulous diathesis. They insure an easy digestion, dissipate pituitous engorgements, excite the mesentery, the lymphatic system, and the secretory organs, but especially the kidneys and skin. There is good ground then for the opinion that they *purify* the blood, provided a reasonable interpretation be given to the word. In fine, they augment the general tone of the constitution, the vital forces, and in this respect are analogous to cinchona, without possessing its astringent property. On this account they are so much the more suitable, and of a more general applicability, wherever there are crudities of the primæ viæ, as is frequently the case in children. It cannot be denied at least, that they are very useful in preparing the way, to proceed from the use of deobstruents to that of the bark.

The remedies in question are suitable in almost every period and complication of the scrofulous disease; but chiefly so in cases of depraved digestion, weakness, relaxation, and where there is acidity or mucosities of the intestinal canal. It is true, however, that they belong rather to the immediate treatment of the scrofulous diathesis than to that of its symptoms.

The most efficacious of them are the extracts of

dogstooth, of dandelion, of white hoarhound, of gentian, of soapwort, of water trefoil (*menyanthes*), &c.: the extract of celandine is rather more irritating, that of quassia still more so. As to the mode of administering them, the best is to dissolve them in antimonial wine with a few grains of muriate of baryta, foliated tartar (acetate of potassa), or sal ammoniac (muriate of ammonia).

23. *Mineral waters, sea water.*

I have not made much use of these waters. But I can hardly believe them capable of effecting a radical cure of scrofula; yet I do not deny that they may concur in producing that end by means of their power to promote the secretions, to awaken the dormant actions of the lymphatic system, and to place it in a condition favourable to its reaction. While employing the real antiscrofulous articles it has several times happened, that I have made children drink daily, a few glasses of Seltz or WILDUNGEN water (both of which contain iron), and I have seen good effects from them. These waters appear to be peculiarly useful in scrofulous affections of the lungs, in those of the skin, and in marasmus.

Every one is acquainted with the praises bestowed by Russel, and other physicians on sea water. Further, muriatic springs, and particularly those that contain a large quantity of carbonic acid gas, are endowed with nearly the same properties, and possess the advantage of being better borne by the stomach. Such among others are the mineral waters of Pyrmont and Silesia.

24. *Injections.*

The administration of medicines by the anus differs in my opinion from their exhibition by the mouth, only

in regard to the surfaces with which they are placed in contact. In either case they act in the same manner, that is, either by absorption, or by the impression they produce on the nervous system. In this disease, as indeed in all others, injections are possessed of advantages which it is important to be well acquainted with.

1. There may be such or such a medicine well adapted in all respects to the nature of a given disease, but which becomes hurtful on account of the specific sensibility of the stomach or some idiosyncrasy of the patient. The inconvenience may be avoided by giving the medicine as an injection. It is well known that there are persons who can not bear camphor when taken by the mouth, but who bear it perfectly well when given in injections.

2. It is a sure method of avoiding the unpleasant consequences resulting from the ingestion of certain substances into the stomach when that organ is disordered. Indeed there are some medicines which exhibit no power while there exists any gastric disorder, which is a very common complication in scrofula. Let these same articles be introduced into the rectum, and we can avail ourselves of their properties, without having to dread the inconveniences that might accompany their ingestion into the stomach.

3. In this way, we do not disorder the functions of the stomach, nor deprive ourselves of remedies which are really efficacious against the principal malady, and which we should be obliged nevertheless to renounce for fear of the effects they might produce if placed in contact with that organ. Thus, most of the narcotics, the salts, and the deobstruents may be indicated in the scrofulous disease; but they produce so much disturbance in the functions of the stomach, that it is like

sacrificing that viscus to the rest of the economy to exhibit them by the mouth. The only means of saving the stomach without injuring the other organs, is to give them by injection.

4. Injections constitute our only resource in children that obstinately refuse to swallow medicine, and in those who take an invincible disgust to certain articles.

5. They possess the advantage of acting directly on the seat of the disease in affections of the mesentery, and of exciting in the absorbent vessels of that organ, the action requisite for the softening and resolution of tumours.

Finally, they excite, especially if they be made somewhat stimulant, they excite I say, the absorbent function throughout the whole extent of the abdomen, and even in the adjoining parts, as for example in the lower extremities, the vertebral region, &c.

I frequently employ injections in my practice, and have abundant reason to be satisfied with them. I order them either as auxiliaries or as curatives, when the scrofulous vice has its seat in the lower belly; in obstructions of the mesenteric glands; in depraved digestion; habitual constipation; in diseases of the liver, spleen, &c.

I compose them of dandelion, burdock, soapwort, or madder; of colt's foot, of flowers of verbascum thapsus, chamomile, bitter-sweet, &c., boiled in rye-bran water; and I add, according to circumstances, cicuta, beef gall, bark, or lime-water. I have derived very good results from small quantities of antimonial wine given in the same manner.

Injections sometimes produce a debilitating effect. This may be prevented by adding to the preparations above mentioned some of the pure tonics, and by causing

them to be taken cold instead of hot. And further, they ought not to be made too copious, nor given too often. My custom is to prescribe them every other day for fourteen days, then fourteen days in succession, then again as at first, and for the same space of time.

25. *Issues.*

There has been a great deal of discussion as to the advantages and disadvantages of issues in the treatment of the scrofulous disease. I think I have remarked that they can in no case be considered as curatives: sometimes indeed they do more harm than good, by the irritation they provoke, and the debility with which they are followed.

But, they are sometimes of great value as fulfilling particular indications; as, for example, to divert the scrofulous irritation or acrimony when it threatens to fix itself upon important organs. In this respect they are very useful in violent ophthalmies, in lippitudo, in affections of the lungs, &c.; the most irritating are the most powerful. I think I have preserved several children from dropsy of the brain, to which they were predisposed, by applying issues to the arm. I will only relate a single case, but it is a remarkable one.

A child had escaped from a former attack of this disease; but he still retained a disposition to relapse, from which he had been hitherto preserved by the application of a cautery to the arm. The parents, believing that the remedy was of no further utility, suppressed it, and soon afterwards the child had a second attack of the same disease under which it sunk.

2. To dissipate local congestions, obstructions, swellings of the joints, and of the bones.—They owe this property to the irritation they produce, an irritation by virtue of which they quiet spasm, promote absorption,

and in consequence, the resolution of the fluids which constitute the matter of engorgements. Issues are very highly to be commended in all these cases ; but, to obtain all the effects they are capable of producing, we should render them very irritating, and maintain their suppuration for a great length of time. Moxa, large blisters, the mezerion, form the most efficient issues.

3. For the cure of chronic affections of the skin. Most diseases of this class, depend on a want of perspiration, and on spasm located in the very situations they occupy, and which constantly keeps up a vicious state of secretion. Revulsives triumph over all these causes, and moreover have the advantage of holding open to nature a new way of elimination, which well supplies the place of the former. It is not uncommon for these eruptions to continue in spite of the employment of the very best internal remedies, and after the cause that gave birth to them has ceased to exist. They then become purely local, and internal remedies are thenceforth useless. It is chiefly in such cases that baths and issues are indicated ; but we must apply them very near to the seat of the disease, and we ought to prefer the cautery, to the bark of the mezerion, because it irritates the skin to a much greater extent.

26. *Baths.*

Simple baths are in general so useful in scrofula that we have placed them among the dietetic remedies : but they are much more useful when made to serve as vehicles for medicinal substances ; these substances act by absorption, and by the impression they produce on the nervous system. Under this twofold view, it appears to me, that baths are not extensively enough employed: they are to the skin what injections are to the rectum.

1. By means of baths we can husband the powers of the stomach and the digestive forces generally, still more effectually than we can by means of injections.

2. We avoid the inconveniences that might result from the ingestion of medicines into a disordered stomach, and can yield to the idiosyncrasies of our patients. It is known that there are individuals in whom the internal use of *cicuta* excites vomiting, but who bear it very well when externally applied.

Even the effects of poisons sometimes result from a peculiar sensibility of the stomach. In fact, if we place these same substances in contact with another system, they cease to act as poisons ; such for example is the case with corrosive sublimate. Introduced into the stomach it produces the effects of a poison in doses of one or two grains, while it may be applied with impunity to the skin, to the amount of eight, ten and twelve grains a day, for a whole month together.

3. We prevent those changes in the medicinal substances, which the digestive powers too often occasion when they are taken into the stomach.

4. We act more immediately on the general lymphatic system, the primitive seat of the scrofulous disease ; and this is by no means a matter of indifference, as will be readily perceived by any one who will take a coup d'œil at other diseases. For example, it sometimes happens in syphilis that we have exhausted all the mercurial preparations without success ; and frictions with corrosive sublimate on the soles of the feet, according to the method of Cirillo, occasion the disease to disappear in a very short time. The same thing occurs in scrofula. The very same means which produce no effect when internally administered act in the happiest manner when applied to the surface of the body. It may be fur-

ther observed that in this latter way they can be exhibited in much stronger doses.

5. In the scrofulous affections of the external surface, baths are of indispensable necessity. In these cases no remedies are to be found more efficient for correcting vitiated secretions, for resolving spasms and engorged glands, for dissipating eruptions on the skin, and obtaining the cicatrization of ulcers.

6. To all this it may be added, that medicinal agents administered by means of baths are less irritating, and produce a milder and more general impression on the nervous system, than when they are introduced into the stomach. This is the reason why warm baths are especially suitable for very irritable subjects, and in diseases of irritation.

But to obtain all the effects that may be rightly expected from them, the patient should remain in the water an hour, or at least half an hour.

Hitherto I have only spoken of baths in general. I shall now proceed to the consideration of those medicated baths which may be successfully employed in scrofula.

1. *Baths of malt.*—These baths have not been appreciated according to their real value. To the advantage of being tonic, they add that of being nourishing, and of producing a good lymph. This is what renders them so precious in the management of atony, consumption, wasting, in obstructions, and in the scorbutic diathesis. To the barley may be added with equal advantage, according to circumstances, either bark or cicuta.

2. *Saponaceous baths.*—They possess very nearly the same properties with those last mentioned, and satisfy the same indications. Cicuta may be advantageously combined with the soap.

The dose of the latter is five or six ounces to each bath.

3. *Baths of cicuta*.—*Cicuta* has succeeded in my hands when all other means had failed. *Cicuta* baths often promote the action of internal remedies. I first made use of them upon the recommendation of Hoffmann, and am anxious to contribute whatever I can to render their employment more extensive. I commonly have them prepared for children with four, five, or six handfuls of *cicuta* leaves, as fresh as possible (for they lose much of their properties by drying), and from eight to twelve handfuls for adults, with a little mint, chamomile, and six or eight pounds of wheat bran. The whole enclosed in a cloth bag and boiled for a few minutes in a sufficient quantity of water, and subjected to repeated pressure. This decoction is then poured into the bath, and even the bag containing the herbs may be put in also, for it is useful to hold it applied to the affected parts. At first the patient remains a quarter of an hour in the bath. In order to protect him from the vapours which rise from it, the bath tub should be covered with a cloth, and he should often smell of a napkin moistened with vinegar.

The early use of *cicuta* baths when persevered in during several weeks, produces really extraordinary effects. They soften down the most obstinate engorgements, hasten the cure of marasmus, and cause ulcers to heal. By this means I have even cured one of those cases of lymphatic swellings of the bones which are generally so obstinate. Administered in this way, the dose of *cicuta* may be carried to a higher degree without producing any of the inconveniences which are charged on the internal use of narcotics, especially in weak and delicate children.

Further, if the patient be very much debilitated, or

if a free use have already been made of resolvents, we may with great advantage associate the bark with cicuta.

4. *Baths of cinchona, of willow bark, of calamus aromaticus, and of other aromatic and astringent vegetables.*—There are many cases where these substances are more efficacious as external, than as internal remedies. And I regard them as among the most powerful *cure-tives* of the scrofulous diathesis, provided always that they be sufficiently persevered in. This mode of administration is less irritating, and also acts uniformly on the whole surface of the body.

I commonly begin with cicuta baths, next I add bark to the cicuta, and close with baths of ferruginous preparations or of bark alone.

A decoction of three ounces of bark, or what amounts to nearly the same thing, of four or five ounces of willow bark, is sufficient for a bath. It may be rendered more active by adding lavender flowers, roman chamomile, mint, thyme, sage, or water germander. If there should be a bone affected with caries or spina ventosa, we should add to the above some calamus and savin. These latter named articles may be employed in local baths with the same beneficial results and under the same circumstances.

Tonic baths are so efficacious, that they speedily restore to the weakest and most pitiful looking children, their pristine vigour and gaiety; they often put a stop even to hectic fever.

5. *Ferruginous baths* are even superior in power to those of bark; but as they are more powerfully tonic, their employment is more dangerous if resorted to, while any symptoms of irritation remain, in violation of the rules we have laid down in speaking of preparations of iron.

I commonly make use of the tartrate of potassa and

iron, or of sulphate of iron (about two drachms for each bath). I am satisfied that we hardly have within our reach a more powerful remedy for completing the cure of scrofula.

6. *Baths of sulphur and of lime.*—The utility of lime water and sulphur in glandular swellings is sufficiently well known. For my own part I place very great reliance on baths composed of these two substances. Reduce to a coarse powder one pound (for children a quarter of a pound) of quick lime, and the same quantity of sulphur; boil them in twenty pounds of water, let the decoction stand for twelve hours, then decant, and pour the liquid into the bath. The sediment treated in this way four times in succession, will serve for four successive baths.

The baths in question ought certainly to rank among the most powerful resources of the art. They have appeared to me to be very useful in the most obstinate gouty affections, in spasms, in anomalous hemorrhoidal affections (where the external is often still more useful than the internal use of sulphur) in the most obstinate eruptions of the nature of itch, and in ulcers. They also deserve to occupy a distinguished place in the plan of treatment for the most rebellious symptoms of scrofula. Such for example as chronic glandular indurations, hardening of the cellular tissue, cutaneous eruptions and swellings of the joints. But they are not adapted to the treatment of very irritable persons, to those of a sanguine temperament, nor to scorbutic subjects, &c.

7. *Sea bathing, mineral baths of muriate of soda.*—Sea bathing is one of the good curative means in the management of the scrofulous diathesis. This is proved beyond cavil by the experiments made with them in England, Germany, at Doberan, and along our sea coast

generally. For information on this subject the reader is referred to the work of M. Vogil on sèa-bathing. The properties of sea-bathing do not depend merely on the muriate of soda and muriate of lime contained in the sea water; it would seem that sea water, in consequence of the perpetual motion by which it is agitated, is somewhat animated—which is not the case with river water, or any other kind. However, domestic baths charged with muriate of soda, enjoy nearly the same properties. The same may be said of natural baths of muriate of soda, particularly when they contain some spirituous principle, as for example, those of Pyrmont, by the employment of which I have seen the most decided glandular engorgements dissipated in the course of a few weeks.

8. *Cold baths* belong to the class of medicinal baths. They must not be confounded with the warm baths of which we treated when on the head of dietetics; they irritate, occasion a movement of spasm and constriction throughout the body, and produce a general shock; this is sufficient to exclude them from the management of diseases of irritation, catarrhs, obstructions, lymphatic indurations and pulmonary affections. But they are eminently indicated in all cases of atony, whether to complete the cure of scrofula or to prevent relapses. They are still more useful in rachitis, for they sometimes are sufficient, without the aid of any other remedy, to effect its radical cure. Finally, cold baths if charged with an irritating principle, as common salt for example, are on a par with sea bathing and with baths of natural saline springs.

TOPICAL REMEDIES, AND LOCAL TREATMENT OF SYMPTOMS.

In the mildest cases, the external symptoms require no particular treatment; a constitutional treatment is the most certain and efficacious in all. When general remedies suffice for the removal of the local affections, as often happens, the cure of the patient is more permanent, while, on the contrary, when topicals have been put under contribution, it is always to be feared that the disease will either return, or attack some other point. Unfortunately it sometimes happens that we can not dispense with them; there are cases even where the local symptoms remain after the disappearance of the scrofulous diathesis and imperiously demand the employment of topicals. In general, we ought to combine the external with the internal remedies, and make them concur in producing the same result.

1. *Glandular engorgements, indurations, tumours, &c.*

The internal treatment often suffices, as we have just remarked, to destroy the scrofulous diathesis and its effects. But there are also some cases in which it is necessary to second internal medicines by the action of topicals.

The first rule in the administration of these latter is the following: we should as far as possible seek to procure the resolution and prevent the suppuration of engorged glands—in fact, it is often not only more difficult to provoke the suppuration than the resolution, but if the tumour ends in suppuration it produces a scrofulous ulcer of bad character, and the engorgement does not always disappear, so that no advantage is derived from suppuration.

If, therefore, you see a swelling begin to redden and

grow pale, be careful not to cover it with irritating fomentations to hasten its maturity. You would surely increase the atony, which, as we have so often said, constitutes the fundamental principle of the malady. You should, on the contrary, endeavour to promote the reabsorption of the matter of engorgement, by covering it with resolvents, a result you can often procure, because scrofulous inflammation is always passive and chronic. If suppuration takes place, it is after the lapse of a considerable period; and even then, the irritating topicals are preferable to ordinary antiphlogistic applications. In these cases the true antiphlogistics are cinchona, mercury, cold water, cicuta and the roborants.

Among the remedies whose efficacy against scrofulous swellings have been tested by experience, we must place

1. *Volatile salts*.—Common volatile liniment (if camphorated oil be used instead of simple oil, and the ammonia be added in the proportion of one third) is very energetic where the frictions are repeated every two hours, and the diseased part is kept constantly enveloped in flannel or waxed cloth.

The following is the formula of an ointment, which I frequently employ with success. Take althea ointment one ounce; beef's gall, Venice soap, of each three drachms; oil of petroleum two drachms; carbonate of ammonia half a drachm; camphor one drachm; mix them and make an ointment, to be employed in frictions to the amount of a teaspoonful every three hours. I have derived very great advantages from it in the most obstinate glandular indurations, not only such as occurred on the exterior of the body, but even in those that were deep seated, as for example in marasmus. It is therefore a very good remedy in mesenteric and hepatic obstructions. This ointment also has the advantage of expelling intestinal worms that so fre-

quently complicate the scrofulous disease; but when intended to be used as an anthelmintic, it must be rendered more active by adding half a drachm of tansy.

2. *Ointment of foxglove*.—This ointment is prepared from the juice of the plant. It enjoys the advantage of causing only a slight irritation of the skin, and of being a powerful resolvent.

3. *Mercurial ointment*.—The common mercurial ointment is very active; but it is much more so when composed as follows: ointment of foxglove, half an ounce; Hahnemann's soluble mercury, half a scruple.

4. *Oil of petroleum*.—An excellent resolvent: employed in frictions on the abdomen the oil of petroleum is anthelmintic. The best method of using it is to mix it with mercurial ointment.

5. *Camphor*.—Used in large doses, camphor performs prodigies in the resolution of obstinate engorgements. The following mixture is among the most efficacious. Take camphor one ounce, triturate it with liquid ammonia three drachms; add olive oil half an ounce.

6. *Opium, cicuta, belladonna, hyosciamus*.—Either the juice, the fresh leaves bruised, lotions, the extract, or the powder.

7. *Gum ammoniac, galbanum, assafœtida*.—Chiefly useful when dissolved in oxymel of squills.

8. *Beef's gall, liquid or inspissated*.—This is a very good resolvent. I frequently make use of it either in combination with the ointments already mentioned, or according to the method of Roncallis. Take fresh beef's gall, common salt three teaspoonfuls, and the same quantity of nut oil. Mix them and make an ointment, with which the indurated glands must be rubbed several times a day.

9. The *squill* is an excellent resolvent, and hydrocephalus has been sometimes cured by simple lotions of oxymel of squills often repeated.

An aged practitioner gave me as a secret the following receipt, which I expressly recommend to the reader. Take a given quantity of squill roots, cut small ; boil it in caustic ley to the consistency of a mucilage ; strain it with pressure, and add a little honey, and as much basilicon ointment as may be necessary to make a thick ointment. This preparation is capable of resolving the most obstinate scrofulous glands and lymphatic tumours, without causing them to pass through the process of suppuration.

10. *Plasters*.—It is probable that the application of plasters is no farther beneficial than by maintaining a continual vapour bath around the diseased part, and protecting it from contact with the air. My reason for thinking so is, that the substances of which they are composed, are for the most part very insignificant. Nevertheless they are very good resolvents. Every body knows that the same effects are sometimes obtained from simple plasters of pitch or resin. I think that these remedies are too much neglected. How often have I seen swellings which had resisted the most boasted ointments, cured by means of them ! However, I commonly combine the two methods ; for I order daily frictions to be made with an ointment on the diseased part, which I afterwards cover with a plaster. The most efficacious of all means of this sort is the following : galbanum plaster with saffron (*safrané*), cicuta, of each half an ounce ; camphor one drachm ; oil of petroleum two drachms ; volatile salt of hartshorn (carbonate of ammonia) half a drachm. Mix. Some mercurial plaster, or Hahnemann's soluble mercury may be advantageously added.

It must never be overlooked that, by the very nature of the substances of which plasters are composed, by the heat and perspiration they occasion on the diseased part, they are very liable to produce an irritation

which may be communicated to the subjacent parts, and determine the suppurative process. As soon therefore as the skin begins to redden, their use must be suspended. With the same view the lead plaster is sometimes mixed with the other substances*.

* *Note by the author.*—I can not help remarking here that an Englishman, Dr Henning, recommends (with another view) the employment of resinous plasters as the best means both of effecting the resolution of scrofulous tumours, and of producing when they have suppurated a laudable pus; but he expressly advises us to wait until the abscess is completely formed. It is then to be carefully opened, the pus evacuated, and the adhesive inflammation must be produced by means of pressure. I am entirely of his opinion on the first point, but not at all so on the second. In fact when an abscess forms and is opened, it will be very rarely in our power either to prevent its degeneration into a scrofulous ulcer, or the interminable consequences of this new symptom. It happens, but only in the most favourable cases, that a new engorgement takes place, so that the patient gains nothing by it. However, it is wrong to judge beforehand; ulterior observations may possibly decide otherwise. Hence I am induced to give an account of the method recommended by the English physician.

As soon as a glandular swelling is observed, it must be covered with a gum plaster large enough to reach beyond the edges of the tumour, and then we should leave nature to exert her own powers. If the swelling be still small, the continual and moderate warmth kept up by the plaster will suffice to effect its resolution without danger to the constitution. The slight engorgement of the skin which sometimes remains, as a mark of the adhesive inflammation with which it has been affected, is of no consequence. But is the engorgement considerable, and its resolution injurious to the general health, the plaster will protect it from the contact of the air, oppose its absorption, and by its warmth keep up the degree of irritation necessary to retain it in its situation.

This difference between different glandular swellings shows itself in a very few days, and therefore the plaster ought always to be removed on the third or fourth day. If the tumour should be found diminished in size, its surface red or painful, the plaster should be left or renewed, and the patient must take a few doses of calomel followed in the morning by a gentle purgative in order to facilitate the resolution already begun. But if the gland instead of being lessened

11. *Saline substances*.—The chief of these are sal ammoniac (muriate of ammonia), spirit of Mindererus

should be found still more enlarged and very painful, the skin which covers it being very red and very hard, we ought to endeavour to promote its suppuration. For this purpose let it be covered with a cataplasm composed of equal parts of balsam of Arcæus and crumb of bread boiled in milk, taking care to apply it as hot as the patient can bear it, and to renew it twice in twenty-four hours. In many cases I have had reason to prefer a mixture of Venice turpentine clarified honey and white of eggs, with a sufficient quantity of wheaten flour to give it a consistency midway between a plaster and an ointment. (This application does not require renewing.) The tumour should be examined at least every other day. As soon as fluctuation is perceptible the whole tumour is soft and elastic, except its base which may be still engorged in consequence of the inflammation. But this engorgement has no connection with scrofulous glands. A narrow flat lancet should now be introduced horizontally as far as to the middle of the tumour, precisely to a point intermediate between its base and the softened part. If the quantity of pus that escapes does not exceed a spoonful and a half, the abscess is to be emptied completely by squeezing it in every direction, and the edges of the wound are to be reunited by adhesive strips. These must be covered by others of a greater width and length crossing each other in every direction; over the whole a graduated compress must be placed, and confined by three turns of a cravat applied as tightly as the patient can bear it. On the thickness of this compress depends the pressure on the abscess and the freedom of the rest of the neck from pressure. In two or three days the compression may be diminished; but it is prudent to leave the adhesive strips for double that period. If they occasion pain by pressing on the edges of the wound, they may be moistened with a sponge.

In this manner the two surfaces of the abscess unite without leaving the smallest interval between them. The wound made by the lancet heals without suppurating, and becomes imperceptible. Lastly, the scrofulous humour is not absorbed, but suddenly evacuated. But if the quantity of pus contained in the abscess should exceed a spoonful and a half, then that quantity is to be drawn off, and the edges of the wound brought accurately together in the way above indicated. The graduated compress is useless in this case; however, it is well to tie a cravat about the neck, or a sort of inguinal bandage (*spica*) to be drawn moderately tight. Two days having elapsed, these adhesive strips are to be removed, after being previously moist-

(acetate of ammonia), common salt (muriate of soda), alkali (potassa), saline ponderous earth (muriate of baryta).

ened, to give escape to the remainder of the pus, provided it exceed not the prescribed quantity, and so on in succession until the whole is exhausted. It is not necessary to observe that on every such occasion, the lips of the wound must be carefully closed so as to prevent the introduction of air. Lastly, when the abscess is entirely emptied, the graduated compress is to be placed over the adhesive strips in the manner already pointed out. This compress must be changed every two days, or better still, every day, so as to keep up a continual uniform pressure. For want of this precaution we run the risk of renewed inflammation, and a new accumulation of pus.

Further, when the quantity of pus is such as to forbid our emptying the abscess at once, a small bit of sponge should be introduced between the edges of the wound and secured by a silk thread, so that it may be withdrawn at will.

Should any pieces of albumen engage in the orifice so as to hinder the evacuation of the pus, they must be pushed back by a probe, or the wound made larger; and then they may be cautiously withdrawn by means of a fine pair of forceps.

The swelling and redness, inseparable companions of inflammation, gradually cease of themselves. To quiet the uneasiness of patients, I make them use, two or three times a day, frictions over the swelled part, with the following ointment. Take camphor reduced to powder, with a little spirits of wine, fifteen grains, calomel one drachm, Goulard's cerate one ounce. Mix them.

If the method we have above explained, be adopted in time, doubtless the suppuration will not reappear; but if discutients and resolvents have been employed very early, then it becomes very difficult to determine inflammation and suppuration. If the employment of the suppurative cataplasms we have above mentioned, continued for a week, should produce no signs of approaching suppuration, we may advantageously substitute for them a compound litharge plaster, or the following mixture, which it is true acts slowly, but without occasioning any pain. This is Kirkland's mixture. Take olive oil, one pound; yellow wax, a pound and a half; frankincense, mastic, myrrh, of each two ounces and a half; minium (red oxide of lead) three ounces; camphor, half an ounce. Mix.

It often enough happens, that after one or two weeks, the abscess opens spontaneously to the great astonishment of the patient. In

12. *Astringents*.—As weakness constitutes one of the principles of all scrofulous engorgements, astringents are well adapted to them. They are often more efficient than the best resolvents; but it will be perceived that they are never more strongly indicated than when there are symptoms of general atony, and where debilitating resolvents have already been made use of. The best astringents are, fomentations with a decoction of cinchona or willow bark, water of Saturn (vegeto-mineral water), white vitriol (sulphate of zinc), alum, ferruginous waters, and cold.

I have sometimes seen scrofulous swellings and glands of a considerable size, completely dispersed by means of these simple topical applications.

Further, a case of this sort well worthy of remark recently fell under my observation. The parotid and sub-maxillary glands had acquired a frightful size under the influence of the scrofulous virus; those glands were already ulcerated, and presented a carcinomatous aspect; they discharged a sanious matter of an insufferable fetor, and sometimes were the seat of troublesome hemorrhages. All the most efficacious remedies belonging to the art, usually of use in similar circumstances, had here been employed in vain. The external use of a strong solution of alum in vinegar, triumphed over this terrible malady.

this case the plaster or cataplasm must be removed, the opening closed with a bit of sponge or a strip, and the abscess treated as before mentioned. But an opening by the lancet is far preferable. 1. Because being made before the disorganization has advanced far, the skin always is uninjured. 2. The edges of a wound made by a cutting instrument are much more disposed to an immediate reunion. The point at which the opening is to be made, and the quantity of pus to be evacuated are at the discretion of the surgeon. It is much easier to prevent the introduction of the external air.

2. *Goitre.*

There are some specifics for this disease, which it rarely resists, when not of an hereditary kind, and when the patient is still young. Among these means, are burnt sponge, egg-shells, ethiops mineral, and muriate of baryta. The method I am going to describe has often succeeded in my hands.

I begin by purging the patient, after which, I make him take, morning and evening, a powder composed of burnt sponge one drachm; prepared egg-shell, ethiops mineral—each half a scruple; oleo-saccharum of anise one scruple; mix and reduce them to a very fine powder. The most favourable time to begin the treatment is at the wane of the moon. I purge the patient once a week with calomel; I put flannel about the neck, and order frictions of the part, morning and evening, with camphorated volatile liniment, sometimes with hare's grease, which is a very good resolvent.—Such is the plan under the administration of which I have seen considerable goitres disappear in two or three weeks.

If the patient is weak or very irritable, and especially if he has very delicate lungs; I prefer that he should take the sponge ley of which I have before spoken. When the burnt sponge produces no favourable change, we must resort to the solution of muriate of baryta: this substance has produced very good effects, in cases where the other was of no avail.

There is another mode of favouring the cure of goitre, and that is, to make the patient take Koempfs's antimonial soap pills.

3. *Cutaneous eruptions.*

Nothing very peculiar is presented by the internal treatment of this form of the scrofulous taint. As to

the external treatment, great advantages are derived from the use of saline, saponaceous, and sulphureous baths. Issues are also very useful in chronic eruptions.

In very obstinate cases I have derived good effects from the employment of lotions of salt-water, a solution of muriate of baryta, or tartarized antimony. The same may be said of Werlhoff's ointment of white precipitate (precipitated sub-muriate of mercury).

4. *Ophthalmia.*

In this case the constitutional treatment of the scrofulous taint is essentially necessary. In my own practice I have cured a very great number of scrofulous ophthalmias merely by internal means. In obstinate cases the ointment of red precipitate (red oxide of mercury) is without contradiction the best of all.

There is not a medicine, not a composition which can be compared to it in scrofulous inflammation of the glands of Meibomius; but I have observed that the common ointments do not always act with the same promptitude, either because they are too much compounded, or because they contain rather too much red oxide of mercury. I have adopted a formula which almost always succeeds with my patients: it is a mixture of equal parts of red oxide of mercury reduced to fine powder, of unsalted butter, and wax—submit the whole to a gentle heat, and mix them intimately. Let the patient take every evening a portion of this ointment, as large as a lentil, and rub the inner edge of the eye lids:—in the morning let him wash his eyes with warm milk.

If during the course of a scrofulous ophthalmia, active inflammation should supervene, as sometimes happens, recourse must be had to the antiphlogistic treatment until the irritation is allayed, and if the patient can not

bear the impression of light, a case that often occurs, the eyes should be fomented with a decoction of hyos-ciamus.

5. *Suppurated glands, scrofulous ulcers.*

Although the subject of this chapter appertains rather to surgery than to medicine, nevertheless I think I ought to remark that as soon as the scrofulous nature of an ulcer is ascertained, care should be taken directly to combat the disease of which it is only a symptom. Without this, the most powerful local applications would be useless ; while on the other hand, the constitutional remedies often suffice for the cure of ulcers without the intervention of topicals.

Too much care can not be used in avoiding greasy ointments, and in general, all debilitating remedies, for they do more harm than good. As to local applications, I know of none that are preferable to fomentations with cicuta, cinchona, and sublimate (super oxygenated muriate of mercury), or the aqua phagedenica.

I cannot sufficiently commend, in the chronic ulcers under consideration, the application of the fresh leaves, bruised, of colts-foot, burdock, and cabbage. A person had a carcinomatous ulcer on the face, derived from a scrofulous origin ; it had already devoured a considerable portion of the skin, and had resisted hitherto all the remedies employed for its cure. It was cured by applications, repeated every three hours, of the fresh leaves, and juice of white cabbage.

Further, the internal use of recently expressed juices of herbs has produced marvellous effects in the cases in question. I remember, among others, that of a young child six years old who had a scrofulous and carcinomatous ulcer on the throat ; this ulcer had already destroyed a part of the soft palate, and the most approved

remedies for such cases had failed. The freshly expressed juices of colt's foot, burdock, cress, and celandine were given to the child, and the ulcer cicatrised.

6. *Scrofulous affections of the bones, pëdarthrocacis, caries.*

Not only should general remedies constitute the essential part of the treatment in these cases, but they often suffice to effect a complete cure : local means however may cooperate in producing this result ; I allude especially to those that exert a particular action on the bones ; such, among others that might be enumerated, are baths, either general or local, composed of savine, of calamus, and of madder. The same may be said of fomentations with cicuta, sublimate, or nitrate of mercury.

7. *Mesenteric atrophy, or marasmus.*

Besides constitutional remedies, the local applications are here of the greatest utility. Such for example are injections with soap suds, lime water, dandelion, bark, madder, cicuta, and colt's foot ; also, frictions and plasters on the belly. The frictions are performed either with an ointment composed of althœa ointment, soap, beef gall, a volatile salt, and two or three spoonfuls of oil of anise, or of curled mint ; or, with a mixture of digitalis ointment and Naples ointment. As to plasters, we may choose that of cicuta, or that of galbanum ; or a cataplasm of cicuta, of digitalis, of chamomile, and of bark. But nothing is more useful to children affected with this malady, than the wearing constantly round the belly, a bandage filled with aromatic herbs. As for example, bark, oak bark, curled mint, marjoram, chamomile, chervil, &c.

8. *White swellings of the joints.*

If these swellings are of a scrofulous character, never open them, not even when fluctuation is manifest; for these openings are always followed by bad consequences. Nothing flows out but a very small quantity of serosity mixed with blood; and deep ulcers of a bad kind, reaching even to the bones, almost always succeed; in some cases luxuriant granulations are developed with incredible rapidity. Hectic fever soon makes its appearance, and if any hope of safety remains for the patient, that hope depends on the amputation of the limb.

Far from using the bistoury in these tumours, do all you can to promote their resolution. Give mercury internally, antimony, digitalis, cicuta, guaiacum, bitter sweet, mezereon, &c. Externally, apply sulphur baths, baths of cicuta; issues near the affected part; cataplasms of fresh leaves of cicuta, belladonna or digitalis; frictions with digitalis ointment, mixed with mercurial ointment and volatile salts. But if any symptoms of irritation should make their appearance, renounce all these measures, in order to have recourse to an antiphlogistic treatment.

There is another remedy which deserves special notice, I mean gum ammoniac boiled in vinegar of squills to the consistency of a plaster; it should be spread on leather, and applied to the diseased joint and left until it falls off. I have seen it remain on for three or four weeks, and completely disperse the swelling within that period of time. I have used perpetual blisters with advantage, as well as tow sprinkled with powder of colophony, and frequently moistened with spirits of wine.

9. *Rickets.*

All the resources of the art must be brought to bear on the treatment of this malady. Tonics, both general and local, such as frequent lotion of the extremities with brandy and spirit of ants, chalybeate baths, baths of cinchona, or oak bark, calamus, madder, savine, &c.

APPENDIX.

I.

ON CROOKEDNESS OF THE VERTEBRAL COLUMN, ITS
CAUSES AND TREATMENT.

THIS affection has so much connexion with the scrofulous taint, and is so often a symptom of it, that it seems to me proper to relate in this place, what experience has taught me regarding its origin, curative management, and particularly its prophylactic treatment. I have often seen this deformity, and have in several instances been happy enough to cure it, although in a somewhat advanced stage.

The first duty of the physician is, without doubt, to seek for the causes, of which, unhappily, little is for the most part known. They will be found to depend far less on external lesions, where they are commonly sought for, than on general weakness of the body, and its organic dispositions. Internal pharmaceutical remedies form, therefore, the principle of the treatment; machinery possesses only an accessory advantage. The children of the peasantry who live in the country, those who take the most exercise, and are consequently more exposed to accidental shocks, are not the only ones who suffer from curved spine. Such cases are frequently met with among the children of people in cities, and

even among the most distinguished families, though constantly attended to with the greatest care and affection. But what do I say! these very attentions dispose them to the disease in question, by preventing the development of their constitutional energies; and hence, they are so common in cities, and in families of the most illustrious birth.

Let us enumerate the chief causes of this malady.

I. *General debility, and particularly, weakness of the bones and ligaments.*

The debility may be either natural or acquired. A debilitating regimen therefore, whatever be its motive or cause, predisposes children to rachitis. And indeed, is it not the strength of the muscles and ligaments that keeps the body erect? Whatsoever tends to diminish this strength necessarily tends, therefore, to deprive the body of the benefits derivable from the abovementioned powers.

II. *All those causes that either predispose to, or absolutely produce the scrofulous disease.*

We have enumerated these causes in the first section of this work, and it would be superfluous to repeat them now. Our object here is to point them out as the most common sources of crooked spine. A child, by the simple circumstance of being scrofulous, contains within him the germ of the disease we are speaking of; so that the disease requires only a favourable opportunity to become manifest. This manifestation sometimes takes place at a very late period, and that too when it is least expected.

The scrofulous vice may give occasion to deformed spine, either by weakening the tone of the constitution in general, or that of the ligaments in particular; by

hindering the natural growth of the bones; by occasioning in them an unnatural state of the absorbent function; or lastly, by means of metastases.

III. *Too long a continuance in one attitude, whether it be standing, sitting, or otherwise, at an early period of life.*

A sitting posture, in which the body is bent, occasions evil consequences that were unknown to the ancients, whose custom it was to be more frequently stretched out at length than seated. This attitude is so unnatural that it constitutes one of the principal causes of deviation of the spine. In the first place, the vertebræ, by being pressed one against another and restrained in their motions, soon become immoveable; in the next place it is so uncomfortable to children to maintain a perpendicular position of the trunk, that it almost always inclines to one side or the other; the vertebræ become started from their proper position, and the progress of growth only serves to confirm the deformity. This effect is the more to be feared, inasmuch as when the whole body rests on the tuberosities of the ischia, the lumbar and dorsal muscles which should keep the body erect, immediately become relaxed. This position vitiates not only the direction of the vertebral column, but also that of the hips and pelvis; it is never more injurious than in the evening and at night. I know whole families whose children are ill shaped, because they are compelled to remain seated during a part of the night. For the same reason the attitude we are compelled to assume in writing is very injurious.

The same remarks and reflexions are applicable to a long continuance in the standing posture. No child can remain a great while on its feet without resting its

weight first on one foot and then on the other, alternately. Nothing more than this is required for the development of the deformity in question.

IV. *Want of exercise.*

The growth and development of the body takes place chiefly in childhood. Every thing depends on the manner in which this development takes place. The essential point is, that it should be uniform; but for this end it is necessary that children should engage in active and varied exercises; for on this alone depends the partition of the nutritive principles and the vital forces equally among all the organs. The free and regular play of all our parts is indispensable to the maintenance of harmony. We incessantly counteract a law of nature, when we labour to develop the intellectual faculties, while we ought to concern ourselves only for those of the body. We do all in our power to extinguish in the child that native instinct which tends to keep it in motion, without reflecting that what we vainly boast of as the fruits of good education, are often nothing more than a love of idleness and dislike of all exertion. Such an education can produce only an injurious influence on the form and constitution of the body. Take the trouble to visit at the manufactories or orphan houses, where the children are early taught to remain long seated, and you will readily appreciate the justice of my remarks.

Even exercise itself, when partial, such as the manual exercise, nine-pins, &c. may become a cause of deformity.

V. *Loss of sleep.*

The development of the body is never more active than during sleep; it, therefore, forms an essential fea-

ture in the physical education of children. Not only does sleep itself, but all surrounding bodies exert a particular influence on the sleeper. Hence unwholesome air and a bad position of the body, are much more hurtful during sleep, than in our waking hours. Absorption takes place with more promptitude, the miasmata that surround become identified with the constitution, and are developed with it.

There are several circumstances relative to sleep that should be taken into consideration, and which may all occasion vertebral deviations to take place.

1. The habit of going to bed late is very bad for children exhausted by the fatigues of the day. The muscles have not sufficient strength in the evening to maintain the spine in its proper direction. If children are kept out of bed, they go to sleep while sitting up, and acquire bad postures, which they retain while growing. As soon as a child becomes tired and sleepy, it should be sent to bed.

2. Wherefore should we always desire to abridge children of their sleep? It is depriving nature of the means of repairing their powers which she chiefly effects during sleep. Nature leads children to sleep a great deal. The younger we are the more we love it; and in my opinion, there is less harm in too much, than in too little sleep.

3. Children are very fond of sleeping while sitting up, a fault to which parents are in general too indulgent, and which soon becomes a habit. Most people, under the persuasion that it is very beneficial for children to sleep with the head and breast very high, make up their beds with this object in view; but this is an untenable error. What advantage can accrue to a child from sleeping eight or nine hours in an unnatural posture? especially as that time is precisely the most

favourable for its corporeal development. Add to this that when the trunk is raised up above the pelvis, the vertebræ, compressed one against another, are obliged to support the weight of the body during the whole night, which is so much the more burthensome, as the muscles and ligaments are then in a complete state of relaxation. How could the spinal column preserve its natural straightness under such treatment? The habit of sleeping in this posture becomes confirmed as we advance in years, and produces the most grievous effects, especially on the abdominal viscera.

The posture in question is not the only one that is prejudicial to the health; the best one is the horizontal, and the worst is that which is most remote from it.

4. Sleeping on feather beds is also very bad for children. Although this cause of crooked spine is often overlooked, it is not on that account less real. A feather bed acts doubtless, by reducing the economy to a state of relaxation by means of the insensible transpiration which it provokes, and by adapting itself to all the forms and inequalities of the external surface of the body. If one assumes a bad posture in such a case, he will keep it all night, for there is no motive for changing it. I have known many ill shaped children who had nothing else to blame for their deformity than the cause under consideration.

VI. *Improper clothing.*

Tight clothes and bandages, especially corsets, which even yet are not entirely out of fashion: however, they are less common in the higher classes of society, but they begin to grow more so in the other classes. Will no writer be found with sufficient courage to warn the people of the evils which they are

preparing for themselves by adopting a custom whose effects are so little understood?

VII. *Too frequent or long rides in jolting carriages, or over rough roads.*

The frequent jolts received by the body in carriages without proper springs, weaken the ligaments of the spine. The child, when fatigued, endeavours to find relief by bending its body double, and goes to sleep in this attitude, which in the course of time gives rise to crookedness of the spine.

Children ought to engage in all the kinds of play common at their age; but riding in carriages when carried to excess is always injurious to them. If an incipient deviation already exists, it augments it with extraordinary rapidity. I could easily relate instances in confirmation of this fact.

VIII. *Metastasis.*

This is a much more common cause of rickets than it is generally believed to be. It is certain, that at its commencement, this affection often depends solely on the transport of the morbid virus to the vertebral column. The nature of the metastasis varies; sometimes it is scrofulous, sometimes variolous, herpetic, rheumatic, &c. whence I conclude that we can not too carefully watch the terminations of these diseases. More dependence is certainly to be placed in these cases on internal than on topical remedies.

IX. *Any disease that compels the subject to remain long in bed, especially in an unnatural posture.*

Such are fractures, pleurisy, peripneumony, and a majority of the *very painful* affections. I therefore call the attention of practitioners to the consequences

of these diseases. If they will take pains to observe them, I believe they will be convinced, as I am, that they often occasion a proneness to rachitic affections. It is easy to conceive in what manner they act: besides being debilitating, they constrain the patient to keep for a longer or shorter space of time in the same position, which may the more easily alter the natural forms of parts, as the body often grows rapidly during febrile diseases. Lastly, they may be followed by metastasis. Enough has been said above to show the necessity of watching with great care the convalescence from these diseases. I have often seen children of the best shape become hump backed by means of the causes I have just now mentioned.

X. *A too rapid growth.*

Nothing is more injurious than a too rapid growth. The body in such cases is remarkably weak; the ligaments yield readily to the elongation of the bones; a revolution takes place in the lymphatic system, its action is increased, and its lymph receives a new impulse, which makes it more liable to wander from its natural course and thereby occasion obstructions in the glands, lymphatic effusions, and metastasis. At any rate, whatever may be the cause, experience has proved, that about the age of six or seven years, or at the period of puberty, if the individual grows fast, it is not uncommon to discover the first symptoms of a deformity, of which any apprehensions were very far from being entertained.

XI. *Mechanical injuries, shocks, accidents, jolts, &c.*

Without denying that these lesions may occasion deviation of the vertebral column, we may nevertheless observe, that they much more frequently act as occa-

sional than as predisposing causes. The proof of which is, that they very rarely produce this deformity in persons of robust constitution.

A majority of the causes we have hitherto mentioned are of such a nature, that to know them suffices to obviate their effects.

1. It is clear that children should be withdrawn from the influence of these causes; hence, no feather beds, no tight clothes, &c.

2. The whole body should be washed every day, and especially the vertebral region, with cold water; and a tepid bath should be used once or twice a week. There is no better way of favouring an uniform development of all the parts, of preventing deformity, and of producing resolution of glands that may have already begun to swell. But if the children are weak or already affected with incipient deviation, the spine should be rubbed with brandy.

3. Good nourishment and salubrious air are the best of all tonics.

4. Never compel a child to remain long either sitting or standing. Let him walk, let him run, let him exercise all his limbs at once; this is the way to maintain an equilibrium among all the organs, to strengthen the body, and thereby to prevent the consequences that might result from debility. But remember, that exercise is never more strengthening than when it is taken in the open air.

5. I recommend that children should be made to sleep on hair, or chaff, or even on wool, but never on feathers. In this way the evils which feather beds have been charged with producing, may be avoided, while we gain the two fold advantage of strengthening the body and at the same time giving it a proper direction during sleep.

Further, in order to perceive the difference between a feather bed and a hair matrass they need only to be compared. It has been observed that those who sleep on feathers are fatigued in the morning, wake with difficulty, and can not easily shake off their uncomfortable feelings ; while those who sleep on hair matrasses feel fresh, light, and comfortable as soon as they wake.

6. Be attentive to the attitudes of children, whether sitting, lying, or standing ; it is important that their postures should be proper.

7. Much greater attention becomes necessary upon the least appearance of the disease. We ought to examine the bodies of children after they have passed through a disease, or on occasion of a too rapid growth. But if, in spite of all our care, and all the precautions dictated by prudence, the disease cannot be prevented, we must endeavour to cure it.

Guided by my own experience, I advise as follows.

I. *All the dietetic and preservative means above indicated.*

Natural postures of the body, spontaneous exercises, hair matrasses, &c.

II. *Daily repetitions of the cold bath and of lotions.*

I have employed these with success. In the outset, for the prevention of metastases, and in order to promote the circulation of the lymph, we may advantageously employ tepid baths composed of pure water, or of an infusion of aromatic plants with the addition of some soap. But if the debility be very great it will be better to use baths of malt, of willow bark, of *calamus aromaticus*, or cinchona, to which may be added with advantage, a fourth part of the lees of spirit of wine,

a strong and powerful tonic for the bones and ligaments. After which we may proceed to the administration of cold chalybeate baths, either natural or artificial.

III. *Internal remedies.*

These should be varied according to the nature of the morbid cause; that is to say, we ought to choose the anti-scrofulous remedies, or tonics properly so called, according as there may exist a scrofulous principle in the case, or according as debility predominates. The same remarks may be made here in regard to assafoetida, cicuta, antimony, mercury, sulphureous baths, &c.

IV. *Topical applications to the vertebral column.*

The nature of these applications should also be adapted to the affections which may require their aid. Thus if glandular swellings make their appearance, resolvers become necessary, and especially plasters, on account of the continuity of their action. A choice may be made among the plasters of pitch, mastic, soap, cicuta, mercury, &c. But if a metastasis to the vertebræ takes place, or if an incipient deformity of the spine already exists, nothing is comparable to issues on each side of the column and near the curvature. These issues should be deep, and should be long kept open; hence I prefer cauteries to blisters, and in bad cases I have still more reliance on moxa.

This is not all. The spinal column being always more or less weakened, we may resort to a great variety of tonic and irritating applications. Such are repeated lotions with cold water, wine, brandy, liquid ammonia, spirit of ants, &c.; or further, with decoctions of cinchona, willow bark, chalybeate water, &c. Lastly, I particularly recommend in these cases, as in all others

where there is local debility, a solution of one drachm of sulphate of iron in two pints of water, or a solution of alum.

V. *The weight of the body.*

Nothing is better adapted to straighten the spinal column than the weight of the body. To take advantage of it let the patient take hold of a rope and suspend himself by his hands. In this way he procures the twofold benefit of keeping the vertebræ separated, and of forcing the muscles to contract. This exercise should be repeated several times a day, and the patient should suspend his body on each occasion as long as his strength will permit.

It is also very useful for the patient to sleep with his limbs extended, on a hair matrass.

VI. *Mechanical remedies.*

None of the remedies require in their application more prudence and care than these. Indeed if they be improperly applied they may produce the very kind of deformity they are intended to remove, especially if there be a principle of debility, as is most commonly the case. In general, machines are liable to injure important parts, and to alter natural forms: so that they do more harm than good, which is the reason they have but few partisans.

Nevertheless they ought not to be entirely proscribed; but I repeat it, they must be used prudently. Their chief advantage, perhaps, is, to keep the individual in mind of the posture he ought to assume. They also support the action of the muscles and ligaments of the spine; but for this purpose it suffices to have a common corset furnished with elastic whalebone, so as not

to permit any interference with the motions of the thorax.

However, it may not be amiss to remark, that much less reliance is to be placed on hard and resisting machines, than on those that act slowly and gently, and to which the body by degrees adapts its form. Thus screws and bandages are infinitely less efficacious in restoring to straightness the bones of young children, than repeated and methodical applications of the hand. I know several cases wherein tender and patient mothers have by this simple manœuvre continued during several months, corrected the deformity of their children. I imagine that the same process, if employed steadily, would not be without useful results in the affections of the spine.

But we are impatient; we generally prefer prompt and violent remedies to such as are mild and act gradually. This is not because the latter are not consonant to the plan of nature herself; but because they require patience, which is wanting in a majority of mankind.

II.

HYDATIDS PRODUCED BY THE SCROFULOUS VICE.

I have on two occasions met with hydatids in the brain, which evidently depended on the scrofulous vice. Both cases were complicated with dropsy of the brain, and terminated by sudden death.

The first of these patients was a little girl three years old, who had always enjoyed good health, though descended from a debilitated father. She was plump and well grown, she walked well, and appeared to possess a considerable share of muscular energy. Her

flesh was soft and bloated, complexion fair with a slight rose tint; understanding lively and precocious; speech easy; belly tumid; glands of the neck slightly swelled; a catarrh which appeared and disappeared by turns; the under lip swelled, often chopped, and covered with a scabby eruption. Such were the symptoms which announced the scrofulous diathesis.

The catarrh disappeared suddenly; her sleep became disordered immediately, and she sometimes screamed while asleep. About the fourteenth day after the disappearance of the catarrh the patient was attacked with a slow fever; and next came inappetency, lassitude, somnolency. The fever assumed no determinate character, the tongue was clean enough, there was no cough, no disturbance of the respiration, no nausea, no vomiting. In the day-time the fever was scarcely perceptible, but it increased at night. A mixture of tartrate of potash, manna, antimonial wine and a little nitre was prescribed, the whole dissolved in a small quantity of water: the patient took a few spoonfuls from time to time. This potion brought off some liquid stools, and the fever gradually diminished until the patient ran about during the whole day, and would no longer be confined to the chamber. Four days afterwards she complained of uneasiness in the pit of the stomach, with a sense of fulness there; the tongue began to be slightly furred, the appetite did not return. On the fifth day I made her take an emetic mixture, and she had scarcely swallowed the second spoonful, when she vomited at four different times a deep green liquid, after which she slept some hours. When she awoke she wanted something to eat; she took some broth and some stewed apples with the greatest appearance of pleasure. The pulse was tranquil and she passed a good afternoon, but had no stool. In the evening fell asleep again

but it was agitated sleep. She kept throwing off the bed clothes constantly; towards midnight had a feeling of strangulation, and then general convulsions; at noon, loss of sensibility, terrible convulsions, eyes wild, trismus, foaming at the mouth, redness of the face, extreme oppression. Antispasmodics and irritating injections produced no effect. Frictions on the abdomen and vertebral region with a liniment composed of camphorated oil, succinated liquor of hartshorn, and liquid laudanum; sinapisms to the feet; baths of warm milk; scarified cups behind the ears: every thing was vain. The face became intensely red; the rattles began to be heard, the patient fell into an apoplectic state, and died about half past three o'clock in the morning.

The body being opened, exhibited all the cerebral vessels filled with blood: even the very substance of the brain seemed to be injected; the lateral ventricles were distended and full of serum, to the amount of three or four ounces. The plexus choroides exhibited some glandular engorgements, and some hydatids. A vesicle of water was even formed on the pineal gland; this vesicle was about an inch in length, and half an inch in breadth; an incision permitted the escape of some transparent lymph, and the vesicle collapsed.

The heart and lungs were sound; upon pressing the latter, however, it was easy to perceive that they contained more blood than common. The liver was in the same state; the gall bladder contained less bile than common; the stomach still contained a small quantity of the drink she had swallowed; it was, with this exception, in a natural state, as well as the intestines. One worm was found in the intestinal tube, and the place it occupied was somewhat redder than other places (I have often made this observation); lastly, the mesentery was infarcted with very hard glands.

A small boy, aged six years, scrofulous and ricketty since his first year, had crooked legs, large joints, a pale and bloated face, the vertebral column curved, abdomen tumid, swelled cervical glands; his head was covered with scabs, which sometimes fell off on the occurrence of inflammation of the eyes. He also complained occasionally of flying pains in the head. This child had been for three weeks making use of antiscrofulous remedies, and particularly the muriate of barytes, preparations of cicuta, an infusion of sassafras, and frequently repeated purgatives, when he was seized with a slight fever, which disappeared after a few days. After this fever, the patient exhibited during one day an uncommon degree of gaiety, and ran about the chamber which he had not done for a long time previously. But, on the evening of that day, he suddenly fell, in the arms of his mother, into the most terrible convulsions, in the midst of which he perished; having exhibited for half an hour previously, all the symptoms of real apoplexy.

On examination of the body the ventricles were found to be full of serum, and hydatids and small glandular swellings were discovered in the plexus choroides. The thorax and abdomen also contained more serous fluid than is natural; the mesentery was infarcted with very hard scrofulous glands; the colon was very much distended, while the rectum was in a contracted condition.

CONCLUSIONS.

1. Dropsy of the brain sometimes depends on the scrofulous taint, and consequently, is not always the product of an inflammation of that organ. In fact, the two cases I have related exhibited no symptoms of inflammation; on the contrary, the patients were scrofu-

lous, and unequivocal signs of scrofula were detected in the very recesses of the brain itself.

But it is well known with what facility the scrofulous diathesis, by impeding the absorbent operations, gives rise to serous accumulations. In the first case it seems that the catarrh with which the patient was affected may have had some influence on the hydrocephalus; for, as soon as the catarrh ceased, the symptoms of dropsy rapidly increased. The catarrh ought to have been considered in this case as a centre of fluxion.

2. Among the cases of hydrocephalus produced by the scrofulous taint, there are some whose existence even is not suspected, and which may occasion sudden death.

3. It is probable that a portion of the water which constitutes this species of dropsy is enclosed in hydatids. Now, might not one of these vesicles suddenly burst, and either in consequence of the effusion of its water, or its particular situation, might not the brain suffer such a degree of irritation as to occasion sudden convulsions, and a fatal apoplexy? There is a sort of encysted dropsy of the brain, to which we may apply what Stoll has said in regard to encysted dropsy of the abdomen: *si hydrops saccatus rumpitur, abit in hydropem universalem, plerumque syncope sequitur, quæ aliquoties in veram mortem transit; ratio est, quia circulus sanguinis repente valide immutatur disrupto sacco. Hæc quoque est causa, cur homines, multis jam annis hydropem saccato laborantes, in aliquo exercitio corporis repente moriuntur**.

4. Moreover, all accumulations of serous matter are not hydatids.—Let a point of irritation be fixed in a lymphatic vessel, it thenceforth becomes the seat of

* Rat. Med. vii. p. 229.

spasm, the flow of the lymph is impeded, and an accumulation of it soon takes place. Doubtless the same effect may be produced by an hydatid, but any irritation may do the same thing, and hydatids themselves ought to be considered as causes of irritation.

III.

ELEPHANTIASIS DEPENDENT ON THE SCROFULOUS HABIT.

A girl of a scrofulous constitution, having had in infancy discharges from the ears, ulcerated eyelids, and all the symptoms of the scrofulous diathesis, was seized with small pox when eleven years old. She continued in good health for about two years; but in the course of her thirteenth year, a swelling commenced on her left foot, which extended to the calf. This swelling disappeared under a constitutional and local treatment, but soon returned, and now involved the whole limb from the toes to the hip. The foot was twice as large as the sound one, rather cool, pale, and so hard that the fingers could make no impression on it. With this exception the girl's health was good, she had a good colour, was lively, yet her sleep was not very good, but the natural functions were regular.

After six months continuance of this condition without using any remedies, a physician was consulted. He prescribed a course of treatment, the basis of which consisted in the use of purgatives. The patient, however, grew weaker, and lost her colour and appetite; finding her foot not improved, she left off the use of remedies, and in a few months recovered her strength and gaiety.

But a little after this period a vesicle appeared on the inside of the left knee, from which a yellowish serous fluid was discharged. The vesicle healed, and reappeared some time afterwards; the matter discharged this time resembled coagulated milk, and was so acrid as to inflame all the neighbouring parts. Nevertheless, the foot continued to swell and to grow harder, until at length in some places it felt like leather. The other foot remained perfectly sound. About this time she had some violent attacks of delirium, oppression, and congestion of the brain dependent on the *crisis* which nature institutes at the approach of the first menstrual eruption, the period of which seemed to be not far off.

Indeed it occurred a few months after this period, the patient being then sixteen years of age. The disease which was already of three years' standing, continuing to increase, I prescribed a ley of burnt sponge, with serpentaria root, some pills made of squill, and a decoction of guaiacum wood. Externally, I ordered applications of emollient herbs, frictions with camphorated ammoniacal liniment, and Goulard's lotion on the ulcerated parts.

These remedies operated on the bowels, increased the urinary discharge, and sometimes excited vomiting; but the condition of the foot remained unchanged, excepting that the ulcerated parts healed. It was judged best, however, not to make any change in the treatment. After a few weeks, another attack like that which has been mentioned took place, marked by delirium, extreme oppression, and a manifest sanguine turgescence. This attack lasted several days, after which the diseased leg appeared to be weaker, and was overspread with a red colour, mixed with a bluish tint. At this same time a small, shining, very tense spot appeared on the

calf of the leg, in which the patient felt violent shooting pain.

Nevertheless, she continued to use the same remedies, to which were added merely, some of Hoffmann's pills of sublimate. Two weeks after this the small spot above mentioned inflamed, then suppurated and discharged an extremely fetid pus. The vesicle on the knee also ulcerated again, and the size of the foot was for some time diminished.

During a whole year the most energetic remedies were employed. Corrosive sublimate, Plummer's powder, arnica, assafoetida, white vitriol, cicuta, mercurial frictions, fumigations with cinnabar, resolvent baths, and sulphureous and martial douches.

The size and hardness of the foot, far from diminishing, was considerably augmented. Besides the disorders that have been already mentioned in various parts of the body, there appeared glandular swellings, which inflamed, opened and discharged a very offensive pus. The patient often had very great pain in the foot. From time to time she had attacks of fever which lasted several days, then vanished, and the local disease was aggravated. The menses were re-established in the summer, without occasioning any change in the state of the principal malady.

At the end of the year the leg was monstrous, hard and scirrhus throughout its whole extent up to the abdomen, covered with numerous inflamed spots, ulcers and scabs, and what is most remarkable, the development of her constitution had not suffered. The course of her menses was sufficiently regular, the appetite good; in a word, all the functions were performed as in the state of health, which proves that the disease of the limb was purely local.

The girl lived in this condition three years longer: the local affection making constant progress, at length brought on hectic fever, of which she died.

I have taken this interesting case from the register of my father. From the symptoms and course of the malady I do not hesitate to assert, that it depended on alterations of the glands and lymphatic vessels. It was therefore a scrofulous affection in its highest degree; but it ought to be observed, how it was limited to the seat it occupied.

As to the form of this disease, I compare it to that which Hillary has described under the name of elephantiasis. Indeed the patient's leg was of a monstrous size, hard as leather and covered with scales and cracks, which however did not prevent the patient from living twenty years, without experiencing any disorder in the rest of her functions. The author remarks that there were occasional attacks of fever, which always aggravated the local affection, and provoked new metastases to the diseased foot.

THE END.





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